

# Cold Chain Transportation Solutions



**Qingdao Haier Biomedical Co.,Ltd.**

No.280 Feng Yuan Road, High-tech Zone,  
Qingdao, 266109, P.R. China  
Tel: +86-0532-88935593  
Website: [www.haiermedical.com](http://www.haiermedical.com)



Note: If a slight difference occurs between pictures and actual products, please refer to actual products. Our company reserves the right of final interpretation of this brochure, please contact us for any further information if required.





**A platform for sharing, an ecosystem of trust.**

# CONTENT

- ◉ **Temperature Range 0~25°C**
  - Active Temperature Controlled RKN Container ----- 03
- ◉ **Temperature Range 0~10°C**
  - Transport Cooler for Biological Products ----- 05
  - Transport Cooler for Infectious Materials ----- 11
  - Vaccine Transport Cooler ----- 13
  - Medical Transport Cooler ----- 14
- ◉ **Temperature Range -20~10°C**
  - Portable Transport Cooler ----- 15
  - Car Refrigerator-W Series ----- 17
  - Cold Chain Transport Cooler ----- 19
- ◉ **Temperature Range -25~25°C**
  - Insulated Container ----- 20
  - Intelligent Control Cold Chain Transport Cooler ----- 21
- ◉ **Temperature Range -80~-60°C**
  - Mini ULT Freezer ----- 23
- ◉ **Temperature Range -135~-196°C**
  - Liquid Nitrogen Storage System ----- 24
- ◉ **Energy Storage Power Supply** ----- 26



Temperature Range 0~25°C

## Scope of Application

This product is applicable for international aviation cold chain transportation of drugs, vaccines, medicines, biological products, raw materials, high-end fresh food and other products which require strict temperature control.



## Product Advantages



Robust construction with advanced technology to ensure reliable quality and stable performance



Prevent internal temperature deviation and ensure the temperature uniformity under extreme environmental temperature changes



Superior internal temperature uniformity



Cost-effective performance

## Specifications

Model	RKN-AT1		
Power	Supports automatic switching between external AC power supply and built-in battery power supply, which is convenient to use and simple to operate		
	Recharging power supply	100-240V AC, 50-60Hz	
	Maximum charging time (h)	10 (fast charging)	
	Maximum power during charging (w)	1,100	
Temperature Control Performance	The temperature management system, developed independently, achieves accurate temperature control through compressor refrigeration and electric heating innovative air circulation system to effectively balance the temperature difference		
	Temperature range	0°C~+25°C (+32°F to +77°F)	
	Internal temperature tolerance	At set temperature +2°C~+10°C (+35.6°F to +50°F), Tolerance +/- 3°C (+/- 5.4°F) At set temperature +10°C~+20°C (+50°F to +68°F), Tolerance +/- 5°C (+/- 9°F)	
	Battery capacity	When the ambient temperature is 25°C (77°F), the set temperature is 5°C (41°F), the container can operate for more than 50 hrs.	
	Operating ambient temperature	-20°C~+43°C (-4°F to +109.4°F)	
	Storage ambient temperature	-40°C~+55°C (-40°F to +131°F)	
Construction	Internal effective volume	2m <sup>3</sup> (70.6 foot <sup>3</sup> )	
	Exterior dimensions (L*W*H)	mm	2005*1534*1620
		in	78.9*60.4*63.8
	Interior dimensions (L*W*H)	mm	1294*1273*1264
		in	50.9*50.1*49.8
Door opening (L*H)	mm	1294*1264	
	in	50.9*49.8	
Weight	Tare weight	kg	650
		lbs	1433
	Operational maximum gross weight	kg	1588
		lbs	3500
Maximum payload	kg	938	
	lbs	2067	
Data Recording	Data recording function: internal and external temperature, door opening times, alarm information through USB port		
Others	Applicable Aircraft Models: A300, A310, A330, A340, A380, B747, B767, B777, DC10, IL86, MD11, L1011 as key examples		
Note	Tare weight and maximum payload might vary due to load variations and maintenance		

Product appearance and specifications are subject to change without notice

## Temperature Range 0~10°C

### Active Cooling Solution



HZY-8Z/8ZA



HZY-15Z/15ZA

- Accurate control of the temperature between 2-6°C
- PCM ice raft
- Constant temperature range (4±1°C)
- Complete process with cold chain monitoring
- Replace the traditional Insulation method with haier's transport cooler for transport
- Blood from blood transfusion department to clinical blood transfusion point



#### Low Noise

- The ultra-quiet fan is equipped with air outlets on both sides, noise level less than 34 dB providing a more comfortable environment.



Air Duct Structure



#### Easy to Clean

- The inner liner adopts aluminium oxidation process to make it smooth inside and easy to clean.



Internal Structure

### Product Features

Semiconductor for active cooling, energy saving and environmental protection.

- Connect to power to cool unit to temperature, during transportation (without power) the unit will hold temperature. Small and easy to carry.

2~6 °C precise temperature control, suitable for storage of biological products such as blood, medicines and reagents etc.

- Temporary blood storage to ensure blood safety at clinical blood stations.

# Transport Cooler for Biological Products

Embedded with 4 °C phase change PCM ice pack for cold storage, providing long insulation after power off to ensure blood safety during the transportation.



4 °C PCM Ice Pack

- The PCM ice pack uses a 4°C phase change material with a freezing point greater than 2°C to ensure the low temperature preservation of blood and other biological samples.
- At 25 °C under no load, the time for temperature inside the box rises to 10 °C is more than 1 hour.
- At 25 °C under full load, the time for temperature inside the box rises to 10 °C is more than 2 hour.

Multiple Fault Alarms, Making It Safer to Use.

- High/low temperature alarm, power failure alarm, and sensor error alarm.

The Power Supply Is Configured with Cigarette Lighter Plug, Easy for Vehicle Transportation.

- The power supply is configured to fit the vehicles internal power plug, easy for vehicle transportation.

### Passive Cooling Solution

- Multi-function handle with casters for easy transportation
- Multi dimensional binding of orders and blood, and whole process with cold chain monitoring
- From blood collection vehicle/blood donation house to blood center/blood station from blood center/blood station to hospital

### Product Features

- LCD screen, real-time display of inside temperature, battery level and other information.
- Electromagnetic lock as standard, ability to scan QR code to open the unit, safeguarding the stored items.
- 4°C ice pack ensures cool storage temperatures with zero freezing to keep blood within safe storage temperature guidelines during transportation.



HZY-5B



HZY-35B

### Product Features

- Real-time display of inside temperature.
- Integrated cold storage ice pack box, easy to access ice pack.
- Rotational moulding shell, anti-knocking, easy to carry.
- Multifunctional handle, sided casters, easy to be transported on flat road.



## Specifications



	Model	HZY-5B	HZY-8Z	HZY-15Z
Technical Data	Storage Temperature (°C)	/	2-6	2-6
	Operating Temperature (°C)	2-10	2-10	2-10
Construction	Net / Gross Weight (kg)	2/3	3.5/5	6/8
	Exterior Dimensions (W*D*H mm)	2859*186*200	320*265*260	520*300*270
	Interior Dimensions (W*D*H mm)	220*118*126	230*140*170	430*150*180
	Packing Dimensions (W*D*H mm)	357*277*287	393*362*367	595*375*404
	Blood Bag Capacity	5	8	15
	Functions	Foam material	High density foam	Polyurethane Cycloisopentane
	Refrigeration method	Passive cooling	Semiconductor active refrigeration	Semiconductor active refrigeration
	Warm up time	3 hours (32°C ambient temperature load situation)	2 hours (32°C ambient temperature load situation)	2 hours (32°C ambient temperature load situation)
	Shell/liner	ABS/ABS	ABS/aluminium plate	ABS/aluminium plate
	Alarm	Low Battery	High temperature, sensor error, power off	High temperature, sensor error, power off
	Battery	Lithium Battery	Rechargeable lithium battery	Rechargeable lithium battery
Certification	CE	/	Y	Y



		HZY-8ZA	HZY-15ZA	HZY-35B
Technical Data	Storage Temperature (°C)	2-6	2-6	/
	Operating Temperature (°C)	2-10	2-10	2-10
Construction	Net / Gross Weight (kg)	4/5	6/8	9/12
	Exterior Dimensions (W*D*H mm)	320*265*260	520*300*270	550*328*370
	Interior Dimensions (W*D*H mm)	230*140*170	430*150*180	450*232*295
	Packing Dimensions (W*D*H mm)	393*362*367	595*375*404	674*455*490
	Blood Bag Capacity	8	15	35
Functions	Cold Chain Monitoring	Y	Y	/
	NFC Unlock	/	Y	/
	Foam material	Polyurethane Cycloisopentane	Polyurethane Cycloisopentane	Polyurethane Cycloisopentane
	Refrigeration method	Semiconductor active refrigeration	Semiconductor active refrigeration	Passive cooling
	Warm up time	2 hours (32°C ambient temperature load situation)	2 hours (32°C ambient temperature load situation)	6 hours (43°C ambient temperature load situation)
	Shell/liner	ABS/aluminium plate	ABS/aluminium plate	HDPE/HDPE
	Alarm	High temperature, sensor error, power off	High temperature, sensor error, power off	/
	Battery	Rechargeable lithium battery	Rechargeable lithium battery	Button battery
Certification	CE	/	/	Y

Product appearance and specifications are subject to change without notice

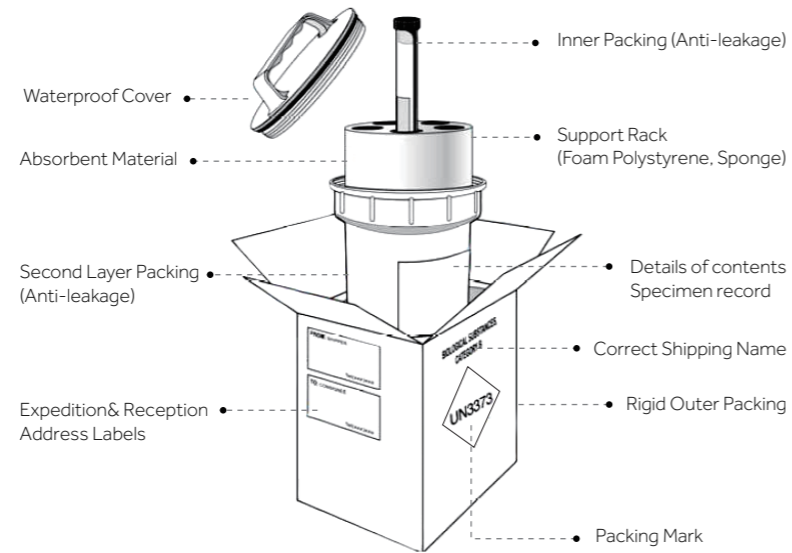
## Transport Cooler for the Infectious Material

The virus is high-risk specimen, and if there is collision during the transportation or transmission, there will be a risk of leakage and re-infection. A solution is urgently needed to ensure the viability of the samples and the safety of transport personnel.

### Packaging System

#### Three-layer packaging:

- **Main container**  
Test tube with cap (user configures according to business)
- **Auxiliary container**  
≥95kPa pressure sealed tank (EPS or EPE bracket for fixing test tube, 16 hole D10 test tube and 2 hole D15 test tube)
- **Outer packaging**  
Transfer box (ice row, foam used to fix sealed container, activated carbon and other adsorbed substances, sample labeling)



### Active Cooling



HZY-8Z (Specimen)



HZY-15Z (Specimen)

## Product Advantages



#### Active semiconductor cooling, energy saving and environment friendly

Active semiconductor cooling, energy saving and environmental protection, built-in cooling function, cooling after power on.



#### Precise temperature control

Precise temperature control at 2°C-6°C is suitable for the temporary storage of biological products such as serum and blood specimens.



#### Built-in, 4°C phase change PCM, ice row cooling, long-term insulation after power failure, to ensure the safety of specimen

Under the condition of no load at 25°C, the temperature of the air in the box rising to 10°C takes 1 hour; under the loading condition of 25°C, the air temperature in the box rising to 10°C takes 2 hours.



#### Multiple fault alarms, safer to use

High and low temperature alarm, power failure alarm, sensor error alarm.



#### The power supply is equipped with a car cigarette lighter plug, which is convenient for vehicle transport

The power supply can support 12V and 100-240V conversion, so the container can be put into the car to plug in and transfer.

### Auxiliary Container



HZY-8Z (Specimen)



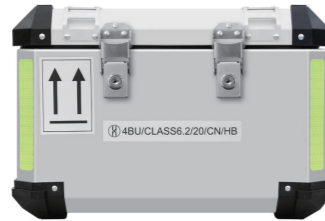
HZY-15Z (Specimen)



#### Pressure sealed tank (EPS or EPE holder for fixing test tubes, 16-hole D10 test tube and 2-hole D15 test tube)

The pressure-sealed tank remains intact at the temperature of the refrigerant used, as well as the temperature and pressure that may occur after loss of refrigeration. Under the condition of no leakage, it can withstand the internal pressure of 95kPa, and can ensure that it will not be damaged in the temperature range of -40°C to +55°C.



Passive Cooling 

UN2814 transport cooler  
HZY-10B (P620)

## Product Advantages

**Passive cooling, long heat preservation time, suitable for air transportation;**

At 32°C ambient temperature, the temperature inside the box (pre-cooled in advance) rising to 10°C takes 8 hours (P620).

**PCM ice row, frozen at 4°C, to ensure the safety of specimen storage;**

**The shell is made of aluminum-magnesium alloy, with high strength; Meeting the P620 packaging requirements of Class A infectious substances(HZY-10B).**

Auxiliary Container 

HZY-10B (P620)

**Pressure sealed tank (EPS or EPE holder for fixing test tubes, 16-hole D10 test tube and 2-hole D15 test tube)**

The pressure-sealed tank remains intact at the temperature of the refrigerant used, as well as the temperature and pressure that may occur after loss of refrigeration. Under the condition of no leakage, it can withstand the internal pressure of 95kPa, and can ensure that it will not be damaged in the temperature range of -40°C to + 55°C.

## Specifications

Model	HZY-8Z	HZY-15Z
Use	Transfer of biological specimens, etc	Transfer of biological specimens, etc
Type	Active cooling, portable	Active cooling, portable
Internal dimensions (W*D*H mm)	230*140*170	430*150*180
External dimensions (W*D*H mm)	320*265*260	520*300*270
Loading quantity	1 transport tank	2 transport tanks
Effective volume	6L, 1 built-in specimen seal can	12L, 2 built-in specimen seal cans
Specimen seal can dimension (mm)	H160*D130	H160*D130
Tube storage capacity	16 pcs D10 test tubes (small), 2 pcs D15 test tubes (large)	
Net weight (kg)	3.5	6
Controller	Microprocessor control	Microprocessor control
Temporary storage temperature (°C)	2-6	2-6
Transfer temperature (°C)	2-10	2-10
Holdover time (25°C, no load) (h)	1	1
Holdover time (25°C, full load) (h)	2	2
External material	ABS, high-density EPS foam filling	ABS, high-density EPS foam filling
Internal material	Aluminum plate	Aluminum plate
Door material	ABS, high-density EPS foam filling	ABS, high-density EPS foam filling
Cold storage	PCM ice-pack for cold storage	PCM ice-pack for cold storage
Cooling type	Optimized semiconductor cooling	Optimized semiconductor cooling
Cooling fan	ADDA fan	ADDA fan
Temperature control and display	Microprocessor control, dual sensors for control and display, display accuracy 0.1 °C	
Alarms	Sensor failure alarm, high temperature alarm, power failure alarm	

## Specifications

Model	HZY-10B (P620)
Purpose	Disease control centers, hospitals, etc. are used for transport of infectious substance specimens (air transportation)
Type	Passive cooling
Internal dimensions (W*D*H mm)	345*225*182
External dimensions (W*D*H mm)	430*312*272
Loading quantity	2 transport tanks
Effective volume	14L with 2 built-in specimen sealed tanks
Specimen sealed tank size (mm)	H160*D130
Number of test tubes (Single tank)	16 test tubes D10 (small), 2 test tubes D15 (large)
Net weight (kg)	8
Transport temperature (°C)	2-10
Thermal insulation time (32°C full load) (h)	8
Cabinet material	Aluminum magnesium alloy box shell
Thermal insulation material	EPP foam liner
Cool storage mode	PCM ice pack cold storage

## Vaccine Transport Cooler



The vaccine transport cooler is superior and efficient, having dual capabilities for cold storage and temperature preservation, which is environmentally friendly and energy saving. The performance of the cooler and holdover time of temperature preservation is influenced by the temperature of the stored items.

**6 Liter/12 Liter/20 Liter/ 30 Liter**

**Scope of Application** ▶ Suitable for vaccine cold chain transportation.

### Product Design and Advantages

- Both inside and outside of the boxes are made of PP (high strength plastic) material, non-toxic and harmless, safe for direct food contact.
- The wall of the box is filled with fluorine-free polyurethane foam insulation material without adding any chemical material, environment-friendly and odor-free.
- The body of the unit is designed with handles on both sides to facilitate manual handling & is manufactured with anti-ultraviolet materials.
- Equipped with professional sealing ring design, with good heat insulation and refrigeration effect.

### Specifications



Model	QBLL0606	QBLL0812	QBLL0820	QBLL0830
Temperature Range (°C)	2-8	2-8	2-8	2-8
Volume (L)	6	12	20	30
Exterior Dimension (mm)	330*240*275	420*245*300	440*262*308	580*310*360
Interior Dimension (mm)	238*143*195	335*170*240	375*215*250	475*245*295
Net Weight (Kg)	1.8	2.4	3.5	4.5
Material	PP	PP	PP	PP
Cold Source Configuration	6 pieces QB004 ice boxes	6 pieces QB004 ice boxes	10 pieces QB004 ice boxes	6 pieces QB010 ice boxes

Remark: QB004 and QB010 are models of ice packs, the dimension of QB004 is 160\*90\*30mm and the dimension of QB010 is 280\*120\*30mm

## Medical Transport Cooler



High strength material, anti-collision, non-toxic and harmless, UV resistant.



The outer-unit body is equipped with an integrated handle, which is firmly installed and durable.



Real-time display of temperature inside the cooler, making the temperature monitoring more intuitive.



Specially positioned ice packs, partitioned storage, easy to operate.



Professional & innovative sealed design ensuring zero cold leakage to achieve safe, secure and reliable long-term cooling preservation.

### Typical Application

Cold chain transportation for samples, reagents, blood products, specimens and drugs.

### Specifications

Model	FS-12LS	FS-18LS	FS-35LS	FS-54LS	FS-100L	FS-110L
Temperature Range (°C)	0-10	0-10	0-10	0-10	0-10	0-10
Duration (h)	≥24	≥24	≥24	≥24	≥24	≥24
Exterior Dimensions (W*D*H)(mm)	440*262*308	440*262*308	570*305*365	615*395*450	680*500*540	832*515*524
Interior Dimensions (W*D*H)(mm)	325*170*225	363*203*244	475*245*270	520*310*355	580*400*440	732*421*425
Qty of Icepacks (Pcs)	4	4	4	4	4	6
Net Weight (kg)	6.2	6.5	9.5	18.5	22	19







Note: -25--15°C and 15-25°C are available with optional ice packs. The standard ice packs can only achieve 0-10°C temperature storage.



## Temperature Range -20~10°C








ALG50

-  Low voltage battery protection
-  LED lighting
-  Widescreen LCD display
-  Real-time voltage display
-  Detachable temperature sensor
-  Standard basket








BCD60

-  Low voltage battery protection
-  LED lighting
-  Detachable temperature sensor
-  Widescreen LCD display
-  Real-time voltage display



BCD115

-  Low voltage battery protection
-  LED lighting
-  Detachable temperature sensor
-  Widescreen LCD display
-  Real-time voltage display

## Specifications

Model	ALG50	BCD60	BCD115
Capacity (L)	50	60	115
Climate Type	T, ST, SN, N	T, ST, SN, N	T, ST, SN, N
Net Weight (Kg)	16.7	24.0	28.6
Operating Temperature (°C)	-20~ +10 (at 25°C)	-18~ +10 (at 32°C)	-18~ +10 (at 32°C)
Power (W)	55	70	70
Refrigerant	R134a	R134a	R134a
Insulation Material	C5H10/C-Pentane	C5H10/C-Pentane	C5H10/C-Pentane
Exterior Dimensions (W*D*H) mm	630*404*530	621*485*569	811*482*672
Packing Dimensions (W*D*H) mm	715*450*625	718*578*638	906*575*745
Voltage Power Supply	AC110-240V, 50/60Hz	AC110-240V, 50/60Hz	AC110-240V, 50/60Hz
	DC 12V/24V	DC 12V/24V	DC 12V/24V
Power Consumption (kWh/24h)	0.23	0.25	0.25

## Scope of Application

Cold chain transportation of samples, reagents, blood products, specimens and pharmaceuticals.



## Product Advantages

- One unit for multiple applications**  
The power supply is equipped with a car cigarette lighter plug, AC 100-240V adapter and optional pluggable lithium battery, which is convenient for vehicle transport, long-term storage at home and outdoors use
- Low sound level**  
Noise level less than 45 dB, providing a more comfortable environment
- Anti-shake design**  
No fear of bumps

- Low voltage battery protection**  
During vehicle use automatically detect battery power and power-off when the battery voltage is low to protect automobile battery
- Double door double control series**  
Double chamber, but independent temperature control. Both compartment can be adjusted as a fridge or a freezer
- Bluetooth connectivity (optional)**  
APP Bluetooth intelligent connection

## Product Details

- USB charging port**  
It can charge electronic devices such as mobile phones
- Embossed aluminum liner**  
Stable performance and rapid refrigeration
- Design of portable pull rod for air circulation**  
Longer pull rod, won't touch the heel
- Double door design**  
Reversible door installation, dual door opening direction

- Two LED lights**  
Light up immediately after opening, convenient for taking things at night
- Outlet**  
It is convenient to clean the refrigerator and drain dirty water
- Door body groove**  
Can hold mobile phones, iPads, etc
- Optional Bluetooth app**  
Remote temperature control, breaking the distance constraint

## Product Dimension Drawings

Model	Serial No.	A1/mm	B1/mm	C1/mm	A2/mm	B2/mm	C2/mm
WEG45		232	314	340	232	314	160
WEG55		232	314	424	232	314	244
WEG65		232	314	494	232	314	314

## Specifications

Model	WEG45	WEG55	WEG65
Exterior Dimensions (mm)	750*449*455	750*449*525	750*449*595
Packing Dimensions (mm)	780*500*515	780*500*585	780*500*655
Net Weight (Kg)	16.5	17.5	18.5
Gross Weight (Kg)	19.5	20.5	21.5
Container Load (20')	136	136	102
Container Load (40'H)	360	288	288
Volume (L)	38 (Large: 25, Small: 13)	48 (Large: 30, Small: 18)	58 (Large: 35, Small: 23)
Ambient Temp. (°C)	10°C ~ +43 (SN/N/ST/T)	10°C ~ +43°C (SN/N/ST/T)	10°C ~ +43°C (SN/N/ST/T)
Cooling Type	Compressor	Compressor	Compressor
Refrigerant	R134a/50±0.5g	R134a/50±0.5g	R134a/60±0.5g
Thickness of Foaming Layer (mm)	45	45	45
Foaming Material	C5H10/C-Pentane	C5H10/C-Pentane	C5H10/C-Pentane
Temp. Range	-20°C ~ +10°C (@25°C)	-20°C ~ +10°C (@25°C)	-20°C ~ +10°C (@25°C)
Voltage (V)	DC 12/24	DC 12/24	DC 12/24
Power of Adapter (V/Hz)	AC110-240, 50/60	AC110-240, 50/60	AC110-240, 50/60
Rated Power (W)	60	60	60
Noise Level (dB)	≤45	≤45	≤45
Working Mode	Direct cooling	Direct cooling	Direct cooling
Material of Shell	HDPE+PP	HDPE+PP	HDPE+PP
Power Consumption (kWh/24h)	0.23	0.23	0.23
Optional-Lithium Battery	187kwh,13000mAh	187kwh,13000mAh	187kwh,13000mAh
QTY of Blood Bags	Big space Small space	Big space Small space	Big space Small space
Dimension of Blood Bag: 140*110*25 (mm)	48U 24U	72U 36U	72U 48U

\*Haier Biomedical reserves the right to change products and specifications without prior notice.



## Active Cooling

### Product Advantages

#### DC Frequency Conversion Technology

DC frequency conversion compressor, superior energy efficiency.

#### Tilt Protection Function

Electronic gyroscope in board, effective protection for compressors.

#### Integrated Main Body

Rotational molding body better adapted to complex transport environments.

#### Multiple Power Supply

Supports AC and DC power.



HZY-40Z

### Unique Designs

-  The body and door use integrated rotomolding.
-  Using environmental LBA CFC-free foaming materials, thermal insulation performance is increased by up to 5%.
-  The body is equipped with a handle for easy carry.
-  Optional: Casters to facilitate transport.
-  Optional: Electromagnetic lock, with password lock equipped; more secure.
-  Forced air cooling method, the temperature is more uniform.
-  Built-in UVC ultraviolet lamp for regular disinfection.
-  3 in 1 wide temperature range, multiple functions within one unit, greater cost savings.

### Specifications

Model	Exterior Dimension (W*D*H)(mm)	Interior Dimension (W*D*H)(mm)	Capacity (L)	Door	Foam Materials	Compressor	Basket Load Bearing(KG)	Working Mode	Outer Shell/ Inner Liner	Condenser/ Evaporator
HZY-40Z	800*550*505	338*348*285	33	Rotational moulding integrated forming foam door	LBA	DC variable frequency compressor	≤35	Forced air cooling and heating	Rotational moulding	Microchannel/ Fin type

Controller	Refrigerant	Light	UV Lamp	Net Weight (KG)	Temperature Range (°C)	Power Supply	Max power (W)	Power Consumption (Kwh/24h)	Electro-magnetic Lock	USB
Microprocessor	HFC	LED 1W	UVC 1W	42	-20 to 22	AC 110-240V 50/60Hz DC12/24V	90	1.5	Optional coded lock	Optional







## Insulated Container

Temperature Range -25~25°C

### Scope of Application

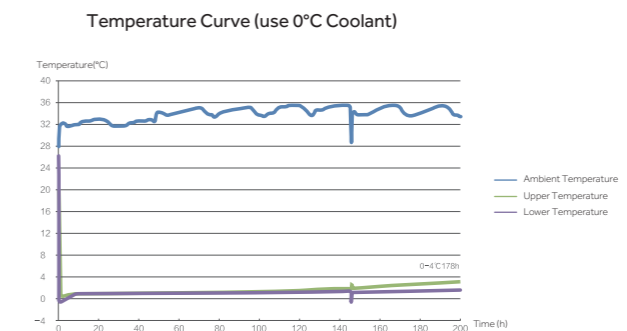
Cold chain transportation of biological agents, blood products, specimens, medicines and fresh food.

### Product Advantages

-  Detachable insulation board, easy for recovery, low salvage cost
-  Special ice pack support for refrigerant box
-  Special forklift base, convenient for loading and unloading goods
-  Special insulation material, temperature inside last longer
-  Optional temperature recorder, temperature monitoring is more intuitive
-  Customized size



### Typical Performance Characteristics



### Specifications

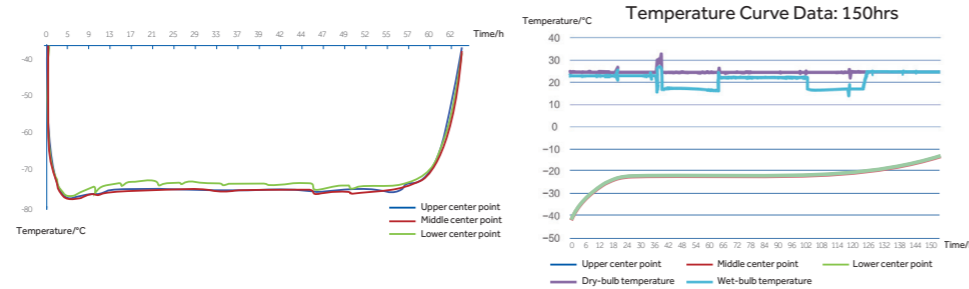
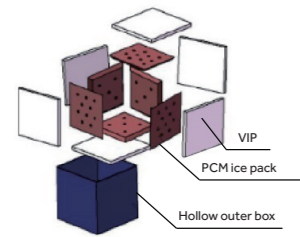
Model	Net Weight (KG)	Exterior Dimensions (W*D*H)(mm)	Interior Dimensions (W*D*H)(mm)	Temperature Range (°C)	Holdover Time (h)
VPU-1000L	144	1220*1140*1140	1020*940*1020	0-10	178

## Product Advantages

**Check the insulation status at any time**  
Real-time upload setting parameters, operation parameters, operation curve, alarm record and event record. Monitor the operation of the transport cooler through the UCool system to visualize the complete process and traceability of information.

**Stable performance, long service life**  
The product adopts VIP insulation technology which has an insulation performance of 5-8 times that of polyurethane foam, and significant extended time temperature control that handles the changing transportation conditions and environment; It has long service life by adopting nanometer core material.

**Light weight, easy to carry**  
Light product with ergonomic design is easy to carry.



## Specifications

Model	BW25-8A	BW25-12A	BW50-12A	BW25-18A	BW25-36A	BW50-36A	BW25-64A
Temperature Range (°C)	-25~-15/2-8/ 15-25/-90~-60	-25~-15/2-8/ 15-25/-90~-60	-25~-15/2-8/ 15-25/-90~-60	-25~-15/2-8/ 15-25/-90~-60	-25~-15/2-8/ 15-25/-90~-60	-25~-15/2-8/ 15-25/-90~-60	-25~-15/2-8/ 15-25/-90~-60
Exterior Dimensions (W*D*H)(mm)	455*295*295	410*345*355	470*400*410	510*350*355	515*450*460	575*510*510	590*525*525
Packing Dimensions (W*D*H)(mm)	546*381*389	504*436*444	560*492*500	607*439*447	609*541*549	665*597*605	679*611*619
Interior Net Dimensions (W*D*H)(mm)	310*215*215	270*270*270	270*270*270	370*270*270	370*370*370	370*370*370	440*440*440
Payload Size (with ice pack)(mm)	270*175*175 (8L)	230*230*230 (12L)	230*230*230 (12L)	330*230*230 (18L)	330*330*330 (36L)	330*330*330 (36L)	400*400*400 (64L)
Net Weight (kg)	4	4.8	9.8	5.6	8.2	16.4	11
Gross Weight (kg)	6	6.8	12.5	8.2	11.2	20	14.8
Recorder Monitoring	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Heat Insulating Material	VIP	VIP	VIP	VIP	VIP	VIP	VIP
Insulation Thickness (mm)	25	25	50	25	25	50	25
Daily Consumption of Dry Ice (kg)	1.5	1.6	0.75	1.85	2.5	1.5	2.7
Safety Margin (kg)	1	1	1	1	2	2	2

Note: The safety margin is the minimum amount of dry ice required to keep the temperature in the box not higher than -70°C.

# Logistics Cold Chain Transport Cooler

## Moderna Vaccine Transport Solutions (-25 to -15°C)

(Size:5.5"L\*2.2"W\*2.5"H)

Model	BW25-8A	BW25-12A	BW50-12A	BW25-18A	BW25-36A	BW50-36A	BW25-64A	HZY-40Z
Refrigeration Principle	PCM	PCM	PCM	PCM	PCM	PCM	PCM	Compressor
Temperature Range (°C)	-25~-15	-25~-15	-25~-15	-25~-15	-25~-15	-25~-15	-25~-15	-20~-15
External Size (mm)	455*295*295	410*345*355	470*400*410	510*350*355	515*450*460	575*510*510	590*525*525	800*550*505
Payload Size (mm)	270*175*175	230*230*230	230*230*230	330*230*230	330*330*330	330*330*330	400*400*400	377*348*285
Gross weight (kg)	6	6.8	12.5	8.2	11.2	20	14.8	61
Hold Over Time (h)	56h	48h	120h	68h	70h	150h	86h	6h
Qty of Moderna Vaccine (CAR)	10	16	16	28	56	56	114	58
Qty of Moderna Vaccine (Vials)	100	160	160	280	560	560	1140	580
Qty of Moderna Vaccine (Doses)	1000	1600	1600	2800	5600	5600	11400	5800

## AstraZeneca Vaccine Transport Solutions (2 to 8°C)

(Size:135mmL\*56mm"W\*60mm"H)

Model	BW25-8A	BW25-12A	BW50-12A	BW25-18A	BW25-36A	BW50-36A	BW25-64A	HZY-40Z
Refrigeration Principle	PCM	PCM	PCM	PCM	PCM	PCM	PCM	Compressor
Temperature Range (°C)	2-8	2-8	2-8	2-8	2-8	2-8	2-8	2-8
External Size (mm)	455*295*295	410*345*355	470*400*410	510*350*355	515*450*460	575*510*510	590*525*525	800*550*505
Payload Size (mm)	270*175*175	230*230*230	230*230*230	330*230*230	330*330*330	330*330*330	400*400*400	377*348*285
Gross weight (kg)	6	6.8	12.5	8.2	11.2	20	14.8	61
Hold Over Time (h)	60h	50h	130h	72h	72h	168h	96h	6h
Qty of Moderna Vaccine (CAR)	10	16	16	28	56	56	114	58
Qty of Moderna Vaccine (Vials)	100	160	160	280	560	560	1140	580
Qty of Moderna Vaccine (Doses)	1000	1600	1600	2800	5600	5600	11400	5800

## Chinese COVID-19 Vaccine Transport Solutions (2 to 8°C)




Model	BW25-8A	BW25-12A	BW50-12A	BW25-18A	BW25-36A	BW50-36A	BW25-64A	HZY-40Z
Refrigeration Principle	PPCM	PCM	PCM	PCM	PCM	PCM	PCM	Compressor
Temperature Range (°C)	2-8	2-8	2-8	2-8	2-8	2-8	2-8	2-8
External Size (mm)	455*295*295	410*345*355	470*400*410	510*350*355	515*450*460	575*510*510	590*525*525	800*550*505
Payload Size (mm)	270*175*175	230*230*230	230*230*230	330*230*230	330*330*330	330*330*330	400*400*400	377*348*285
Gross weight (kg)	6	6.8	12.5	8.2	11.2	20	14.8	61
Hold Over Time (h)	60h	50h	130h	72h	72h	168h	96h	6h
Qty of SinoVac Vaccine (Doses)	60	60	60	128	280	280	400	240
Qty of CNBG Vaccine (Doses)	68	110	110	154	315	315	618	240

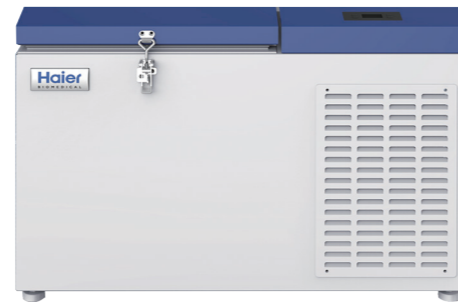
## Temperature Range -80~-60°C

### Scope of Application





It is suitable for biobanks, vaccination production and transportation users.

### Product Advantages

- 
**HC Energy Saving**  
 High quality HC high-efficiency compressor with optimized refrigeration system, which can save 50% on power consumption.
- 
**One Unit for Multiple Applications**  
 \*Vehicle-mounted transportation with 24V(DC) power supply  
 \*Long-term storage with 220V power supply.
- 
**Superior Uniformity**  
 Built-in evaporator, fast cool down refrigeration, the temperature is safe, secure and reliable with the uniformity of  $\pm 3^{\circ}\text{C}$  at key characteristic points.



### Ergonomic Design

- 
**Lightweight**  
 The whole unit weighs 27kg, easy to carry.
- 
**Superior Insulation Performance**  
 25mm VIP + 70mm thick LBA foam insulation layer design, dual seal strips for better insulation.
- 
**Safety Lock Catch**  
 Simple adjustable mechanical lock with lock catch, and it can be equipped with an external lock to guarantee the safety of sample transportation and storage.
- 
**Metal Handle**  
 Hidden metal handle, stylish and comfortable, safe and durable, easy to carry.

### Specifications

Model	Power Supply	Temp Range (°C)	Exterior Dimensions (W*D*H)(mm)	Interior Dimensions (W*D*H)(mm)	Effective Capacity (L)	Net/Gross Weight (Kg)
DW-80WZ15	220V 50Hz/110V 60Hz DC24V	-80~-60	690*320*500	260*180*330	15	27/33

# Liquid Nitrogen Storage System

## Temperature Range: -196~ambient Temperature

### Low Temperature Transport Trolley YDC-3000H

#### Mobile Cryogenic Transfer Operation Platform

The unit can be used to preserve plasma and biomaterials during transportation. It is suitable for deep hypothermia operation and transportation of samples in hospitals, various biobanks and laboratories. High quality stainless steel in combination with the thermal insulation layer ensures the effectiveness and durability of the low temperature transport trolley.





## Product Advantages

### Touch Screen

LCD touch operation

### USB Data Export

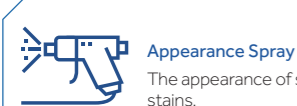
It has its own USB interface and supports USB data export.

### Real Time Monitoring

The instrument monitors the temperature and liquid level in real time and displays the expected remaining service time. Continuous working hours up to 24 hours.



## User Friendly Design



**Appearance Spray**  
The appearance of spray, not easily affected by stains.



**Caster Design**  
Integrated design, universal caster at the bottom, easy to move.



**Polymer Materials**  
The new type of environmentally-friendly polymer material is used inside the cover plate, which is more appealing, more environment-friendly and more advanced than the commonly used pearl foam and polyurethane materials.



**The Insulation Cover can be Magnet Absorbed**  
The insulation cover can be magnet absorbed to the side of vehicle, which is convenient to extract, and the space reserved at the bottom can be used to store other tools.

## Technical Parameters

Model	Dimensions (L*W*H)(mm)	Frozen Storage Space (L*W*H)(mm)	Liquid Nitrogen Under Tray (L)	Maximum Storage				
				5*5 Freezing Boxes (ea)	10*10 Freezing Boxes (ea)	50ml Blood Bag Boxes (ea)	200ml Blood Bag Boxes (ea)	2ml Cryopreservation Tube (ea)
YDC-3000H	1295*523*1095	900*335*163	33	65	30	105	50	3000

## Energy Storage Power Supply

### Product Features and Advantages

- High power, long endurance, and powerful output
- Multifunctional interface, compatible with multiple devices
- Intelligent digital display, precise display of various parameters
- Pure sine wave, stable output, no damage
- Intelligent battery cells with multiple protections
- Independent switch, Individual control, safe and energy-saving



### Technical Parameters

Model	DC12V 700W	DC12V 1200W
Exterior Dimensions (mm)	386*222*231	386*222*231
Weight (kg)	8.5	10
Batteries Models	UR1865ZM2-3.6V-2550mAh(6S9P)	UR1865ZM2-3.6V-2550mAh(6S18P)
Charge Cut-off Voltage (V)	25.2	25.2
Discharge Cut-off Voltage (V)	18.0	18.0
Typical Capacity	22950mAh 21.6V   495.72Wh	45900mAh 21.6V   991.44Wh
Charge Time	About 2.5h-6.5h	About 5h-13h
USB Output Voltage	5.0V ±0.25V	5.0V ±0.25V
USB Output Current	Max 2000mA	Max 2000mA
QC3.0 USB Output Voltage	5V/9V/12V	5V/9V/12V
QC3.0 USB Output Current	3.0A/2.0A/1.5A, 18W MAX	3.0A/2.0A/1.5A, 18W MAX
Type-C Output Voltage	5V/9V/12V/15V/20V	5V/9V/12V/15V/20V
Type-C Output Current	Max 3000mA, 100W	Max 3000mA, 100W
DC Output Voltage	12V±0.5V	12V±0.5V
DC Output Current	Max 10A	Max 10A
AC Output Voltage	220V ± 10%	220V ± 10%
AC Output Power	≥700W	≥1200W
AC Output Frequency	Sine 50HZ ± 5%	Sine 50HZ ± 5%
Battery Temperature Protection	Charging: 45°C ±5°C Discharging: 65°C ±5°C	Charging: 45°C ±5°C Discharging: 65°C ±5°C
Operating Temperature	Charging: 0°C-45°C Discharging: -20°C-60°C	Charging: 0°C-45°C Discharging: -20°C-60°C

### Endurance for Active Cooling Transport Coolers (for Reference Only)

Model	DW-80WZ15	HZY-40Z	ALG50	BCD60	BCD115	WEG45	WEG55	WEG65
Duration of 700W	2.0h	24h	24h	18h	17h	24h	24h	24h
Duration of 1200W	4.0h	48h	48h	36h	33h	48h	48h	48h