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Haier Biomedical  
Intelligent Protection of Life Science

# Pharmacy Refrigerator

## Solutions



ТОВАРЫ



# CONTENT

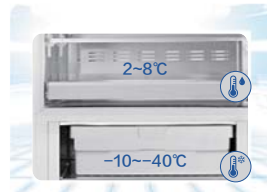
• <b>Combined Refrigerator and Freezer</b> -----	03
• <b>RFID Refrigerator</b> -----	07
• <b>Pharmacy Refrigerator with TEC</b> -----	09
• <b>Advanced Pharmacy Refrigerator with LCD Touchscreen</b> -----	13
• <b>Advanced Pharmacy Refrigerator with LED Display</b> -----	14
• <b>Standard Pharmacy Refrigerator</b> -----	17
• <b>Under-counter Pharmacy Refrigerator</b> -----	25

## Main Application

This product is designed to store blood plasma, biological products, vaccines, medicines and chemical reagents.



HYCD-469



Temperature Control



Security Guaranteed



Variable Frequency Hydrocarbon Refrigeration System



Data Storage

# Combined Refrigerator and Freezer

## Key Features

### Temperature Control

- Refrigerator temperature ranges from 2°C to 8°C.
- Freezer temperature ranges adjustable from -10°C to -40 °C.
- Microprocessor temperature control accuracy 0.1°C (refrigerator) and 1°C (freezer) .

### Safety

- Separate doors for refrigerator and freezer with independent lock catches, dual padlocks available to ensure product safety.
- Multiple alarm functions including high or low temperature, sensor error, high ambient temp, power failure and remote alarm.
- Two types of alarm indications: audible buzzer and visible flashing light.

### Refrigerator System

- Refrigerator and freezer have independently controlled variable frequency refrigeration systems, standalone displays as well as separate on and off controls.
- Robust compressor system operating with environmentally friendly hydrocarbon refrigerant.
- Refrigerator with high quality and high efficiency cooling fan provides better temperature uniformity and stability.

### Ergonomic Design

- Large LED screen display for excellent user interface experience.
- USB port automatically saves temperature data for up to 10 years for convenient inquiry and record keeping.
- Optional printer to simultaneously print out temperatures of the refrigerator and the freezer.
- Four casters and two levelling legs design for ease of maneuvering.

## Specifications

	Model	HYCD-469			Model	HYCD-469			
Technical Data	Cabinet Type	Upright		Dimensions	Exterior Dimensions (W*D*H)	mm	738*834*1975		
	Climate Class	N				in	29.1*32.8*77.8		
	Cooling Type	Refrigerator: Forced air cooling Freezer: Direct cooling			Packing Dimensions (W*D*H)	mm	800*875*2100		
	Defrost Mode	Refrigerator: Auto Freezer: Manual				in	31.5*34.4*82.7		
	Refrigerant	HC			Container load (20/40/40H)		14/30/30		
	Sound Level (dB(A))	45			Alarms	High/Low Temperature		Y	
Performance	Cooling performance (°C)	Freezer: -40		Remote Alarm		Y			
	Temperature Range (°C)	Refrigerator 2-8 Freezer -10--40		Power Failure		Y			
Control	Controller	Microprocessor		Sensor Error		Y			
	Display	LED		Low Battery		Y			
Electrical Data	Power Supply (V/Hz)	220-240/50/60		High Ambient Temp		Y			
	Power (W)	580		Accessories	Caster		Y		
	Electrical Current (A)	3			Foot		Y		
Dimensions	Capacity (L/Cu.Ft)		Refrigerator:269/9.5 Freezer: 200/7.1		Porthole		Y		
	Net/Gross Weight (approx)	kg	176/207		Shelves/Drawers	Refrigerator: 3/0 Freezer: 3/0			
		lbs	388.0/456.4			USB Interface	Y		
	Interior Dimensions (W*D*H)	mm	Refrigerator: 593*585*800 Freezer: 553*545*660		Others		Certification		CE
in		Refrigerator: 23.3*23.0*31.5 Freezer: 21.8*21.5*26.0							





**HYCD-282**



**HYCD-282A**



# Combined Refrigerator and Freezer

## Combined Refrigerator and Freezer

### Excellent Performance

- Refrigerator compartment temperature range: 2°C to 8°C
- Adjustable temperature range for freezer compartment: -20°C to -40°C

### Separately Controlled Refrigerator and Freezer

- USB port for data download
- Capable of recording temperature data for up to ten years
- Independent display for refrigerator and freezer sections
- Adjustable shelving in refrigerator and freezer has drawers
- Multiple alarms to detect malfunctions

## Specifications

Model		HYCD-282	HYCD-282A			
Technical Data	Cabinet Type	Upright	Upright			
	Climate Class	N	N			
	Cooling Type	Refrigerator: Forced Air Cooling	Refrigerator: Forced Air Cooling			
		Freezer: Direct Cooling	Freezer: Direct Cooling			
	Defrost Mode	Refrigerator: Auto Freezer: Manual	Refrigerator: Auto Freezer: Manual			
Refrigerant	CFC-Free	CFC-Free				
	Sound Level (dB(A))	43	43			
Performance	Cooling Performance (°C)	Freezer: -40	Freezer: -40			
	Temperature Range (°C)	2-8/-20~-40	2-8/-20~-40			
Control	Controller	Microprocessor	Microprocessor			
	Display	LED	LED			
Electrical Data	Power Supply (V/Hz)	220-240/50	220-240/50 208-230/60			
	Power (W)	400	400 400			
	Electrical Current (A)	2.8	2.8 2			
Dimensions	Capacity (L/Cu.Ft)	Refrigerator: 185/6.5		Refrigerator: 185/6.5		
		Freezer: 97/3.4		Freezer: 97/3.4		
	Net/Gross Weight (approx)	kg	145/160		145/160	
		lbs	320.0/352.7		320.0/352.7	
	Interior Dimensions (W*D*H)	mm	Refrigerator: 605*510*720		Refrigerator: 605*510*720	
			Freezer: 515*465*440		Freezer: 515*465*440	
		in	Refrigerator: 23.8*20.0*28.3		Refrigerator: 23.8*20.0*28.3	
			Freezer: 20.3*18.3*17.3		Freezer: 20.3*18.3*17.3	
Exterior Dimensions (W*D*H)	mm	736*660*1810		736*660*1810		
	in	29.0*26.0*71.3		29.0*26.0*71.3		
Packing Dimensions (W*D*H)	mm	775*720*1930		775*720*1930		
	in	30.5*28.3*76		30.5*28.3*76		
	Container Load (20'/40'/40'H)	21/45/45		21/45/45		
Alarms	High/Low Temperature	Y	Y	Y	Y	
	Remote Alarm	Y	Y	Y	Y	
	Power Failure	Y	Y	Y	Y	
	Sensor Error	Y	Y	Y	Y	
	Low Battery	Y	Y	Y	Y	
	High Ambient Temp	Y	Y	Y	Y	
Accessories	Caster	Y	Y	Y	Y	
	Foot	Y	Y	Y	Y	
	Porthole	Y	Y	Y	Y	
	Shelves/Drawers	Refrigerator: 3/1 Freezer: 0/2	Refrigerator: 3/1 Freezer: 0/2	Refrigerator: 3/1 Freezer: 0/2	Refrigerator: 3/1 Freezer: 0/2	
	USB Interface	Y	Y	Y	Y	
Others	Certification	CE	CE	CE	/	

Product appearance and specifications are subject to change without notice

## Smart Management of Reagents Starts with IoT Technology

From manufacturer to patients, the entire process is automatically and smartly controlled.



**HYC-390R**



**Smart IoT system means simple, precise and effective reagent storage management**

Automatic management of reagents is a reality with the utilization of the RFID based smart IoT management system



Smart RFID label



Smart RFID shelf



Industrial-grade IoT network module group

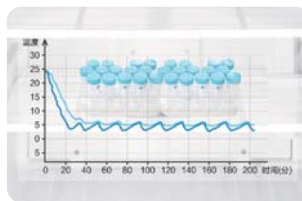


**Secure, authorized access management**

NFC authorized management system is traceable



**Statistical analysis of data and precise verification for compliance**



**Precise temperature control for ultimate safety of test reagents**

2°C- 8°C storage temperature and real time monitoring of cabinet temperature



**Smart alerts for maintenance and product management**

Smart alarm and alerts for abnormal temperature, low storage level alerts, deadline for clinical trials



**Manpower savings**

Smart process control improves accuracy and efficiency, saving manpower for reagent management.



**Optimized procurement process reduces waste**

Accurately and timely control of reagent usage. Make intelligent procurement decisions to reduce shortage and reduce inventory.



**Rigorous reagent management to reduce risk**

Constant temperature for reagent storage  
Automatically trigger temperature alarms when fridge reaches critical temperature, ensuring safety of reagent usage.



# RFID Refrigerator



## HYC-509R

- Automatic inventory check, one-key query, instantly and efficiently.
- High definition LCD touch screen, automatic record of warehouse-in and warehouse-out information. It can always trace who, when and where to access reagent information, which is convenient and accurate, and it can achieve management visualization.
- Automatic early warning of the validity period, first in, first out, to eliminate waste.
- The system automatically generate order, which saves time and effort.
- One-click report generation, efficient and accurate.
- The platform will real-time monitor equipment operating status, safe and secure.
- Web-side reagent management, assist users in the whole process of data collection and analysis, accurate accounting, scientific guidance, and one platform can manage multiple equipment.

## Specifications

	Model		HYC-390R	HYC-509R
Technical Data	Cabinet Type		Upright, single door	Upright, single glass door
	Climate Class		N	N
	Cooling Type		Forced air cooling	Forced air cooling
	Defrost Mode		Auto	Auto
	Refrigerant		HC	HC
	Sound level (dB(A))		43	40
Performance	Cooling performance (°C)		±3	±2
	Temperature Range (°C)		2-8°C	2-8
Control	Controller		Microprocessor	Microprocessor
	Display		LED	Touch
Electrical Data	Power Supply (V/Hz)		208-230/50/60	208-230/50/60
	Power (W)		225	400
	Electrical Current (A)		1.2	2
Dimensions	Capacity (L/Cu.Ft)		390/ 13.77	509/17.97
	Net/Gross Weight (approx)	kg	116/139	180/215
		lbs	255.73/306.44	396/473
	Interior Dimensions (W*D*H)	mm	530*555*1380	593*585*1500
		in	20.9*21.9*54.3	23.21*22.9*58.8
	Exterior Dimensions (W*D*H)	mm	720*710*1965	693*813*1981
		in	28.3*28*77.4	27.1*31.9*77.7
	Packing Dimensions (W*D*H)	mm	792*790*2110	800*875*2100
in		31.2*31*82.9	31.3*34.3*82.3	
Alarms	Container load (20'/40'/40'H)		14/45/45	12/24/24
	High/Low Temperature		Y	Y
	Remote Alarm		Y	Y
	Power Failure		Y	Y
	Sensor Error		Y	Y
	Low Battery		Y	Y
Accessories	Door Ajar		Y	Y
	Caster		Y	Y
	Foot		Y	Y
	Porthole		Y	Y
	Shelves		5	Y
Others	Certification		CE	CE

R suffix - RFID with IoT model for reagent management  
 Product appearance and specifications are subject to change without notice

## Pharmacy Refrigerator with Thermoelectric Cooler (TEC) Technology

The refrigerator can be used to store vaccines, medicines and laboratory products at 2°C to 8°C temperature range in pharmaceutical companies, laboratories, clinics, and hospitals.



**HYC-51BF**



### With TEC technology for super low noise and minimum vibration

- Military grade TEC refrigeration technology (also called a Peltier device)
- Low noise DC fan
- Less than 35dB(A) sound level



### Multi temperature protection

- Air temperature sensor for control
- Display sensor for displaying the actual temperature
- Overtemp or high-end temperature sensor to protect TEC module for a service life of more than 10 years



### Microprocessor temperature control for 2°C to 8°C

- Forced air cooling with  $\pm 1^\circ\text{C}$  temperature uniformity and display accuracy of  $0.1^\circ\text{C}$
- Maximum power for rapid temperature pulldown

# Pharmacy Refrigerator with TEC

## Safer by Design

Theory of Operation: Thermoelectric cooling uses the Peltier effect to create a heat flux at the junction of two different types of materials. The cooling power is controlled by pulsing signals to TEC module for tight temperature control of  $\pm 1^{\circ}\text{C}$ .



## The Advantage of Compressor Free Refrigerator

TEC Technology	VS	Conventional Compressor
 <ul style="list-style-type: none"> <li>• Sustainable &amp; non-toxic refrigeration</li> <li>• Energy efficient and low waste heat</li> <li>• No pumps or motors for quiet operation</li> <li>• No moving/mechanical parts for improved reliability and longevity</li> <li>• Compact design allows more storage capacity</li> <li>• Lab &amp; Clean room ready dust-free operation</li> </ul>		 <ul style="list-style-type: none"> <li>• Refrigerant required</li> <li>• Less energy efficient</li> <li>• Sound producing motors and compressors</li> <li>• Moving mechanical parts</li> <li>• Larger footprint, demands more valuable space</li> <li>• Expensive filtration required</li> </ul>



### Power Protection Switch and Removable Power Cord

- Dual safety protections
- Power cord plug accessible on exterior of unit
- Suitable for on and under counter installation
- Universal power supply 220V/115V at 50/60Hz



### Frost Free Cooling Fins on TE Module

- Defrost process initiated after accumulated run hours
- Temperature does not exceed  $7^{\circ}\text{C}$  during defrost process



### Natural Evaporation of Condensate

- Interior water is drained through a small hole into a stainless steel catch box. Condensate water is evaporated by warm air flow



### Self-closing Doors

- Door stays opened at 90 degree
- Door automatically swings closed at less than 90 degree to reduce moisture infiltration
- Tested to 100,000 times door opening and closing



### LED Lighting

- Led lights illuminate interior



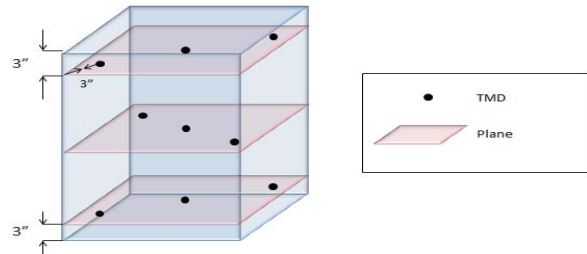
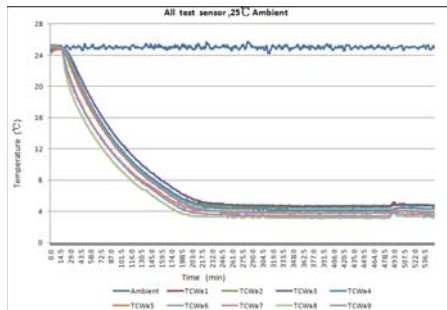
### Removable Trays with ABS Material

- Manufactured using chemical and thermally stable ABS material
- Adjustable three-tray design
- Each tray holds thirty 50\*50\*50 mm storage boxes, totalling 150 boxes
- Trays designed for over 500,000 movements
- Weight limit at 100 kg/sq. m



Low noise DC fan, sound level less than 35dB (A)

## Typical Performance Characteristics at 25°C Ambient



# Pharmacy Refrigerator with TEC

## Specifications

Model		HYC-51BF		
Technical Data	Cabinet Type	Upright		
	Climate Class	N		
	Cooling Type	Force Air Cooling		
	Sound Level (dB(A))	34		
Performance	Cooling Performance (°C)	±2		
	Temp Range (°C)	2-8		
Control	Controller	Microprocessor		
	Display	LCD		
	LCD Size (in)	7		
Electrical Data	Power Supply (V/Hz)	115/60	220-240/50	
	Power Input (W)	165		
	Rated Current (A)	1.5	0.8	
Dimensions	Net/Gross Weight (approx)	kg	50/57	
		lbs	110.3/125.8	
	Interior Dimensions (W*D*H)	mm	380*300*470	
		in	14.96*11.81*18.5	
	Exterior Dimensions (W*D*H)	mm	525*565*720	
		in	20.7*22.2*28.3	
	Packing Dimensions (W*D*H)	mm	550*600*883	
		in	21.7*23.6*34.8	
Container Load (20'/40'/40'H)		72/152/152		
Alarms	High/Low Temp	Y		
	Sensor Error	Y		
	Door Ajar	Y		
	Alarm Mode	Audible Buzzing and Alarm Window		
Accessories	Level Leg	4		
	Tray	3		
	Data Log	USB		
Others	Certification	UL	CE	

Product appearance and specifications are subject to change without notice

# Pharmacy Refrigerator

## Advanced Pharmacy Refrigerator with Touchscreen



HYC-1099TF

HYC-509T

HYC-1099T

HYC-509TF

### Product Advantages



#### Intelligent and Interactive Touchscreen Control

- An intelligent, high definition liquid crystal touch screen control system, allows users to view temperature graphs, operation status, events and alarm records



#### Data Storage

- Standard USB, optional printer, capable of storing 10 years' temperature data, historical data can be checked and traced



#### Secure Access and Authorized Management

- NFC authority system works with a magnetic lock system to ensure product safety. In addition, access to unit and stored products is traceable
- Finger print module is optional for additional safety



# Pharmacy Refrigerator

## Advanced Pharmacy Refrigerator with LED Display



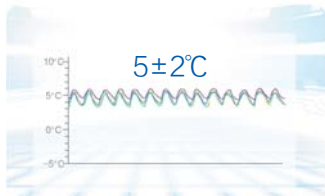
HYC-1099F

HYC-509

HYC-1099

HYC-509F

## Product Advantages



### Precise Temperature Control and Reliable Operation

- Advanced control system
- Six sensors
- High efficiency air flow system
- Precise temperature control
- Uniform temperature distribution
- VFD driven compressor
- High-efficiency fan motor

### Multiple Features for Sample Security And Protection

- Audible buzzer and visual flashing lights for alarm system as standard
- Alarm system includes door ajar, temperature, sensor malfunction, battery, loss of power and clogged condenser
- Remote alarm contact terminals as standard
- Supplied with mechanical lock as standard, there is an optional magnetic lock for added product safety

### Environmentally Friendly Refrigeration

- R600a Hydrocarbon refrigeration system does not have any negative impacts of the ozone layer, with zero global warming effect

## Specifications

Model		HYC-509	HYC-509F	HYC-509T	HYC-509TF	
Technical Data	Cabinet Type	Upright, single glass door	Upright, single solid door	Upright, single glass door	Upright, single solid door	
	Climate Class	N	N	N	N	
	Cooling Type	Forced air cooling	Forced air cooling	Forced air cooling	Forced air cooling	
	Defrost Mode	Auto	Auto	Auto	Auto	
	Refrigerant	HC	HC	HC	HC	
	Sound Level (dB(A))	40	40	40	40	
Performance	Temperature Range (°C)	2-8	2-8	2-8	2-8	
Control	Controller	Microprocessor	Microprocessor	Microprocessor	Microprocessor	
	Display	LED	LED	Touch	Touch	
Electrical Data	Power Supply (V/Hz)	208-230/50/60	208-230/50/60	208-230/50/60	208-230/50/60	
	Power (W)	370	315	370	315	
	Electrical Current (A)	1.85	1.75	1.85	1.75	
Dimensions	Capacity (L/Cu.Ft)	509/17.97	509/17.97	509/17.97	509/17.97	
	Net/Gross Weight (approx)	kg	180/215	175/210	180/215	175/210
		lbs	396/473	385/462	396/473	385/462
	Interior Dimensions (W*D*H)	mm	593*585*1500	593*585*1500	593*585*1500	593*585*1500
		in	23.21*22.9*58.8	23.21*22.9*58.8	23.21*22.9*58.8	23.21*22.9*58.8
	Exterior Dimensions (W*D*H)	mm	693*813*1981	693*813*1981	693*813*1981	693*813*1981
		in	27.1*31.9*77.7	27.1*31.9*77.7	27.1*31.9*77.7	27.1*31.9*77.7
	Packing Dimensions (W*D*H)	mm	800*875*2100	800*875*2100	800*875*2100	800*875*2100
		in	31.3*34.3*82.3	31.3*34.3*82.3	31.3*34.3*82.3	31.3*34.3*82.3
	Container Load (20'/40'/40'H)	12/24/24	12/24/24	12/24/24	12/24/24	
Functions	High/Low Temperature	Y	Y	Y	Y	
	Remote Alarm	Y	Y	Y	Y	
	Power Failure	Y	Y	Y	Y	
	Sensor Error	Y	Y	Y	Y	
	Low Battery	Y	Y	Y	Y	
	Door Ajar	Y	Y	Y	Y	
Accessories	Caster	Y	Y	Y	Y	
	Foot	Y	Y	Y	Y	
	Porthole	Y	Y	Y	Y	
	Shelves/Drawers	Y/Optional	Y/Optional	Y/Optional	Y/Optional	
	USB Interface	Y	Y	Y	Y	
Others	Certification	CE	CE	CE	CE	

T suffix - Advanced with touchscreen

Product appearance and specifications are subject to change without notice

# Pharmacy Refrigerator

	HYC-1099	HYC-1099F	HYC-1099T	HYC-1099TF
	Upright, double glass door	Upright, double solid door	Upright, double glass door	Upright, double solid door
	N	N	N	N
	Forced air cooling	Forced air cooling	Forced air cooling	Forced air cooling
	Auto	Auto	Auto	Auto
	HC	HC	HC	HC
	43	43	43	43
	2-8	2-8	2-8	2-8
	Microprocessor	Microprocessor	Microprocessor	Microprocessor
	LED	LED	Touch	Touch
	208-230/50/60	208-230/50/60	208-230/50/60	208-230/50/60
	470	440	470	440
	2.5	2.25	2.5	2.25
	1099/38.5	1099/38.5	1099/38.5	1099/38.5
	340/400	330/390	340/400	330/390
	748/1000	726/858	748/1000	726/858
	1295*585*1500	1295*585*1500	1295*585*1500	1295*585*1500
	50.7*22.9*58.8	50.7*22.9*58.8	50.7*22.9*58.8	50.7*22.9*58.8
	1395*813*1981	1395*813*1981	1395*813*1981	1395*813*1981
	54.7*31.9*77.7	54.7*31.9*77.7	54.7*31.9*77.7	54.7*31.9*77.7
	1525*900*2100	1525*900*2100	1525*900*2100	1525*900*2100
	59.8*35.3*82.3	59.8*35.3*82.3	59.8*35.3*82.3	59.8*35.3*82.3
	6/12/12	6/12/12	6/12/12	6/12/12
	Y	Y	Y	Y
	Y	Y	Y	Y
	Y	Y	Y	Y
	Y	Y	Y	Y
	Y	Y	Y	Y
	Y	Y	Y	Y
	Y	Y	Y	Y
	Y	Y	Y	Y
	Y	Y	Y	Y
	Y/Optional	Y/Optional	Y/Optional	Y/Optional
	Y	Y	Y	Y
	CE	CE	CE	CE

# Pharmacy Refrigerator

## Standard Pharmacy Refrigerator

The Haier pharmacy refrigerators are suitable for pharmacies, drug stores, pharmaceutical companies, hospitals, clinics and other pharmaceutical storage areas such as storage and logistics.



**HYC-1378**

# Pharmacy Refrigerator

## Standard Pharmacy Refrigerator

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### Durable and Reliable - Key Features

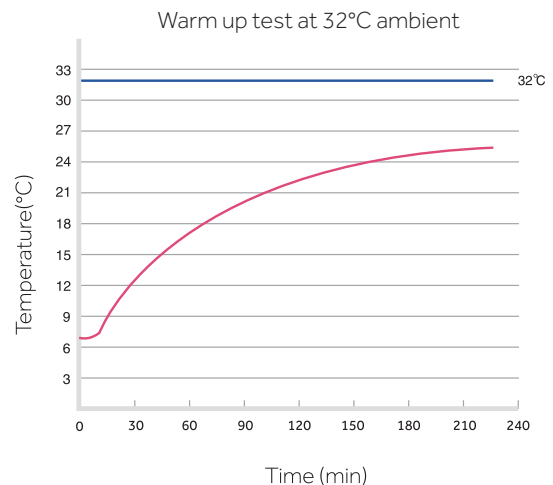
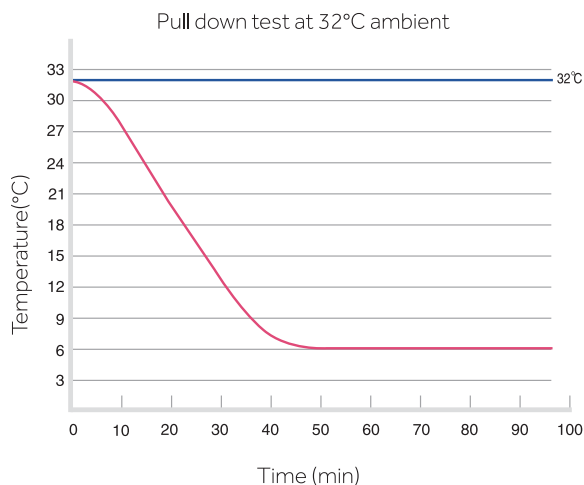
- Energy efficient hydrocarbon (HC) refrigeration system
- Permanently lubricated cooling fan for safety and longevity
- Forced-air cooling with optimized air distribution system designed to achieve maximum temperature uniformity and stability
- Optimized refrigeration system design for more effective cooling and speedy recovery
- Temperature variation within  $\pm 3^{\circ}\text{C}$
- Chamber temperature range  $2\text{--}8^{\circ}\text{C}$
- Microprocessor control with large digital display. Adjustable temperature with an increment of  $0.1^{\circ}\text{C}$
- Wide voltage tolerance suitable for regions with an unstable voltage supply
- Designed for ambient temperature  $10^{\circ}\text{C}\text{--}32^{\circ}\text{C}$  with humidity below 85%

### Safety

- Equipped with a complete temperature alarm system featuring audible buzzer and visible flashing light
- Capable of alerting failures due to high or low temperature, sensor error, door ajar, remote alarm, power failure and low battery

### Ergonomic Design

- Optimized space utilization design with multi-level and adjustable shelf height to accommodate the different storage requirements of varied sized pharmaceutical products.
- Safety lock to prevent unauthorized access
- Caster design and levelling feet
- Interior light



# Pharmacy Refrigerator

## Standard Pharmacy Refrigerator

New and improved Haier pharmacy refrigerators now offer an improved temperature profile and more user-friendly control features.



**HYC-390**



# Pharmacy Refrigerator

## Standard Pharmacy Refrigerator

### Technical Advantages

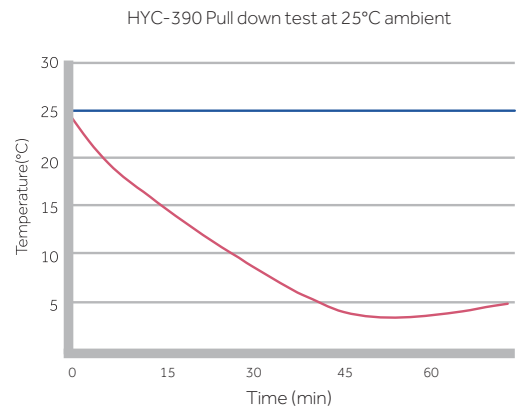
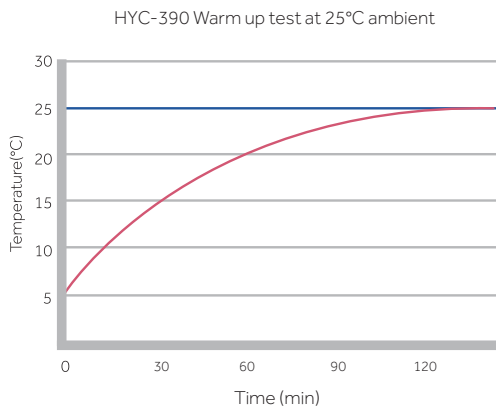
- Accurate temperature control maintains 2°C to 8°C throughout the unit with an adjustable increment at 0.1°C
- Improved user interface includes a data storage capacity of up to 10 years
- Oversized air-cooled condenser improves the robustness of the refrigeration system, reliability and refrigeration efficiency

### Ergonomic Design

- The temperature data of the newly improved storage management system is downloadable from the USB port
- Traceability of temperature data
- Heated double-pane glass door allows a clear view of stored products without condensation at 32°C and 85% relative humidity ambient conditions
- LED interior light saves energy and provides bright lighting of interior for easy product location and identification
- Shelves with label holders meet demands required for quick and effective product archiving and retrieving

### Safety

- Microprocessor control with digital display
- Temperature uniformity within 3°C
- Malfunction alarms include high/low temperature, door ajar, sensor error, power failure, low battery and remote alarm interface



## Pharmacy Refrigerator Standard Pharmacy Refrigerator

Used for storage of biological products, vaccines, drugs, reagents, etc., the unit is widely used in pharmacies, pharmaceutical factories, hospitals, CDC, laboratories as key examples.

### Material:

HIPS adsorption liner,  
sprayed steel case

### Shelves:

Standard with 6 shelves



### Caster and foot:

Standard equipped with 4 universal casters and 2 adjustable feet, ensure the refrigerator moving and fixed



\*Optional: USB, printer, RS485/232 interface

**HYC-410**

# Pharmacy Refrigerator

## Standard Pharmacy Refrigerator

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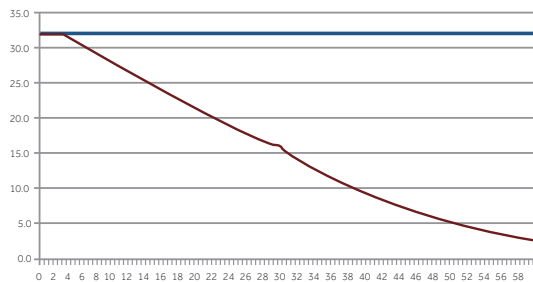
### Superior Performance

- Microcomputer controller, LED temperature display, accuracy 0.1°C
- Fin type evaporator and double fan system, temperature uniformity  $\pm 2^{\circ}\text{C}$
- R600a hydrocarbon refrigerant, LBA foaming agent, energy saving and environmental protection
- Optimized system and structure design, noise down to 41 dB(A)
- Panoramic glass door, LED lighting, goods are clear at a glance
- Heated door to prevent condensation
- Standard with 1 test hole, convenient for user to test

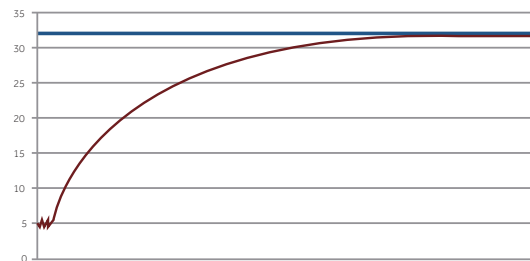
### Safe

- Equipped with built-in lock and security latch to accommodate a padlock, safe and reliable storage
- Multiple alarms: High and low temperature, sensor error, power failure, low battery, door ajar, high ambient temperature and communication fault alarm
- Alarm mode: audible buzzer and flashing light, remote alarm. The alarm will continue for 24 hours after power failure

**Cool down curve**



**Warm up curve**



At 32°C ambient temperature, the cooling time is about 50 minutes, the heating time is about 8 hours

— Ambient Temp.  
— Test point Temp.

The product is applicable to pharmacies, pharmaceutical factories, quarantine stations, health centers and hospitals, used to store biological products and those need to be stored at a temperature between 2-8°C.



**HYC-639**

### **Energy Saving**

- 70mm thick foam layer, optimized refrigeration system, low power consumption, less than 6 kWh per day.

### **Environmentally-friendly**

- Hydrocarbon refrigerant, truly completely environmental protection refrigeration system.
- Polyurethane insulation layer, the whole series adopts European ROHS directive materials, environmental protection.

### **Better Uniformity**

- Finned evaporator, double fan system.
- The temperature is more uniform, the characteristic point temperature uniformity is  $\pm 2^{\circ}\text{C}$ .

### **Low Noise**

- Optimized system and structure noise reduction design, noise 43 dB (A).

### **Multi-channel Sensor, Reliable and Safe**

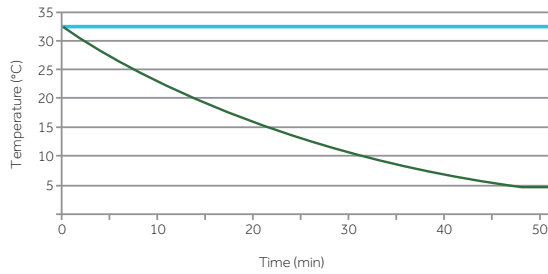
- Equipped with upper display sensor, lower display sensor, defrosting sensor, control sensor, ambient temperature sensor, condenser dirty sensor.

# Pharmacy Refrigerator

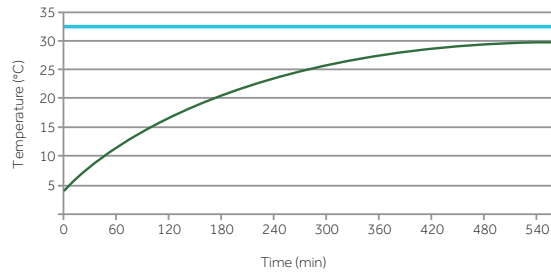
## Standard Pharmacy Refrigerator

### Typical Performance Characteristics in 32°C Ambient Temp.

#### Cool down curve



#### Warm up curve



— Ambient Temp.  
— Center Temp.

### Product Details

- **Microprocessor control system**  
Microprocessor electronic temperature controller, LED temperature display, display precision is 0.1°C
- **Insulation**  
70mm thick foam layer, to provide better insulation effect
- **Porthole**  
Standard equipped with a porthole, convenient for users to test and use
- **Security lock**  
Equipped with safety lock with 2 keys for drug storage safety
- **Temperature recorder**  
Standard USB  
Optional printer, RS485 interface, etc
- **Material**  
The liner is sprayed steel plate for easy cleaning
- **Casters and leveling leg design**  
Standard with 4 universal casters and 2 height adjustable feet to ensure ease of movement and stability
- **Shelve**  
Standard with 4 shelves, optional 6 shelves



\*Optional: stainless steel liner, printer, RS485 interface, touch screen



## Easy to Install, Ergonomic and Reliable

Haier are pioneers in under-counter pharmacy refrigerator design and manufacturing, offering ultra-low noise system, safety lock, complete alarm system for sample safety and protection.





# Under-Counter Pharmacy Refrigerator



## Reliability and Key Features

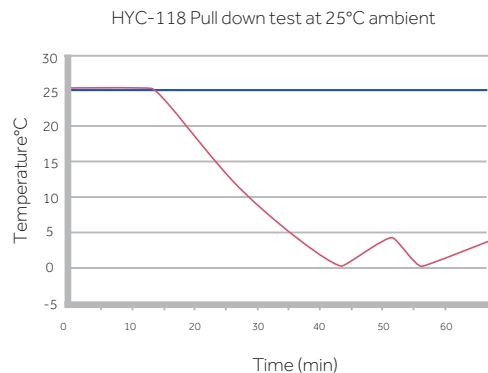
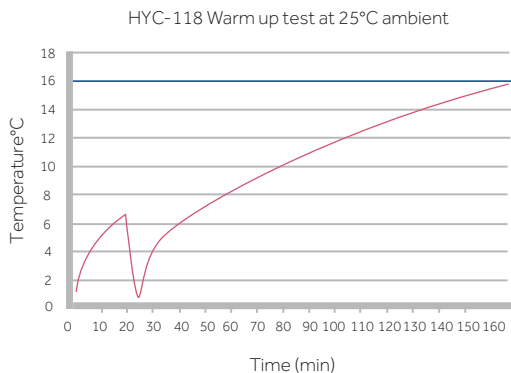
- Energy efficient hydrocarbon (HC) refrigeration system
- Permanently lubricated cooling fan for safety and longevity
- Forced-air cooling with optimized air distribution system designed to achieve maximum temperature uniformity and stability
- Optimized refrigeration system design for more effective cooling and speedy recovery
- Temperature variation within  $\pm 3^{\circ}\text{C}$
- Chamber temperature range 2-8 $^{\circ}\text{C}$
- Microprocessor control, digital display and temperature adjustment with an increment of 0.1  $^{\circ}\text{C}$
- Designed for ambient temperature 10-32 $^{\circ}\text{C}$  with humidity below 70%

## Safety

- Equipped with a complete temperature alarm system featuring audible buzzer and visual flashing light
- Capable of alerting failures due to high and low temperature, sensor error, door ajar, power failure, and remote alarm interface

## Ergonomic Design

- Interior LED light
- Safety lock to prevent unauthorized access





## Specifications

Model		HYC-68		HYC-68A		HYC-118		HYC-118A		HYC-290		
Technical Data	Cabinet Type	Upright, Solid Door		Upright, Glass Door		Upright, Solid Door		Upright, Glass Door		Upright, Single Door		
	Climate Class	N		N		N		N		N		
	Cooling Type	Forced Air Cooling		Forced Air Cooling		Forced Air Cooling		Forced Air Cooling		Forced Air Cooling		
	Defrost Mode	Auto		Auto		Auto		Auto		Auto		
	Refrigerant	HC		HC	HC	HC	HC	HC	HC	HC		
	Sound Level (dB(A))	41		41		41		41		43	43	
Performance	Temperature Range (°C)	2-8		2-8		2-8		2-8		2-8		
Control	Controller	Microprocessor		Microprocessor		Microprocessor		Microprocessor		Microprocessor		
	Display	LED		LED		LED		LED		LED		
Electrical Data	Power Supply (V/Hz)	220-240/50	115/60	220-240/50	115/60	220-240/50/60	115/60	220-240/50/60	115/60	115/60	220-240/50	
	Power (W)	140	150	140	150	190	190	230	230	200	350	
	Electrical Current (A)	0.85	1.7	0.85	1.7	1.4	1.4	1.5	1.5	2.2	1.8	
Dimensions	Capacity (L/Cu.Ft)	68/2.4		68/2.4		118/4.2		118/4.2		290/10.2		
	Net/Gross Weight (approx)	kg	38/40		38/40		41/46		46/51		105/127	
		lbs	83.8/88.2		83.8/88.2		90.5/101.5		101.5/112.5		231.6/280.1	
	Interior Dimensions (W*D*H)	mm	415*385*505		415*385*505		515*415*630		515*415*630		530*555*1080	
		in	16.3*15.2*19.9		16.3*15.2*19.9		20.3*16.3*24.8		20.3*16.3*24.8		20.9*21.9*42.5	
	Exterior Dimensions (W*D*H)	mm	495*580*660		495*580*660		597*635*810	597*635*810	597*635*810	597*635*810	665*710*1665	
		in	19.5*22.8*26.0		19.5*22.8*26.0		23.5*25.0*31.9	23.5*25.0*31.9	23.5*25.0*31.9	23.5*25.0*31.9	26.2*28.0*65.6	
Packing Dimensions (W*D*H)	mm	540*640*710		540*640*710		680*690*910		680*690*910		690*790*1810		
	in	21.3*25.2*28.0		21.3*25.2*28.0		26.8*27.2*35.8		26.8*27.2*35.8		27.1*31.0*71.1		
	Container Load (20'/40'/40'H)	108/228/228		108/228/228		48/102/102		48/102/102		21/42/42		
Alarms	High/Low Temperature	Y		Y		Y		Y		Y		
	Remote Alarm	Y		Y		Y		Y		Y		
	Power Failure	Y		Y		Y		Y		Y		
	Sensor Error	Y		Y		Y		Y		Y		
	Low Battery	Y		Y		Y		Y		Y		
	Door Ajar	Y		Y		Y		Y		Y		
Accessories	Caster	Y		Y		Y		Y		Y		
	Foot	Y		Y		Y		Y		Y		
	Porthole	Y		Y		Y		Y		Y		
	Shelves/Drawers	2/1		2/1		3/1		3/1		5/-		
	USB Interface	Optional		Optional		/		/		Y	Option	
	Printer	N/A		N/A		N/A		N/A		Optional		
Others	Temperature Recorder	N/A		N/A		N/A		N/A		Optional		
	Certification	CE	UL	CE	UL	CE	UL	CE	UL	UL	CE	

# Pharmacy Refrigerator



	HYC-390		HYC-410		HYC-639		HYC-390F		HYC-610		HYC-940		HYC-940F		HYC-1378	
or	Upright, Single Door		Upright, single door		Upright, glass door		Upright, Single Door		Upright, Single Door		Upright, Double Glass Door		Upright, Double Solid Door		Upright, double door	
	N		N		ST		N		N		N		N		N	
g	Forced Air Cooling		Forced air cooling		Forced air cooling		Forced Air cooling		Forced Air Cooling		Forced Air Cooling		Forced Air Cooling		Forced Air Cooling	
	Auto		Auto		Auto		Auto		Auto		Auto		Auto		Auto	
	HC		HC		HC		HC		HC		HC		HC		HC	
3	43	43	41	43	43	43	43	43	45	43	45	43	45	43	43	45
	2-8		2-8		2-8		2-8		2-8		2-8		2-8		2-8	
	Microprocessor		Microprocessor		Microprocessor		Microprocessor		Microprocessor		Microprocessor		Microprocessor		Microprocessor	
	LED		LED		LED		LED		LED		LED		LED		LED	
/50/60	115/60	220-240/50/60	220-240/50	220-240/50	220-240/50/60	115/60	220-240/50/60	115/60	220-240/50/60	115/60	220-240/50/60	220-240/50/60	220-240/50/60	220-240/50/60	220-240/50/60	115/60
0	240	360	350	410	210	115	550	500	700	850	500	600	850	600	850	850
8	2.4	1.8	2.0	2.15	1	1.5	3	6.2	3.5	7.5	2.7	3	7.5	3	7.5	7.5
	390/13.8		410	639/28.3	390/13.8		610/21.6		890/31.4		890/31.4		1378/48.7		1378/48.7	
	116/139		116/139	200/240	106/129		204/227		227/279		207/259		310/360		310/360	
	255.8/306.6		255.7/306.4	551.15/639.33	233.8/284.5		449.7/500.4		500.4/615.1		456.4/571.1		683.4/793.7		683.4/793.7	
	530*555*1380		530*590*1380	760*897*1993	530*555*1380		680*640*1400		1030*590*1425		1030*590*1425		1320*700*1500		1320*700*1500	
	20.9*21.9*54.3		20.9*22.8*54.3	29.9*35.3*78.5	20.9*21.9*54.3		26.8*25.2*55.1		40.6*23.2*56.1		40.6*23.2*56.1		52.0*27.6*59.1		52.0*27.6*59.1	
	665*710*1965		665*710*1965	620*706*1520	665*710*1965		780*840*1945		1130*755*1980		1130*755*1980		1440*950*1980		1440*950*1980	
	26.2*28.0*77.4		26.2*28.0*77.4	24.4*27.8*59.8	26.2*28.0*77.4		30.7*33.1*76.6		44.5*29.7*78.0		44.5*29.7*78.0		56.7*37.4*78.0		56.7*37.4*78.0	
	690*790*2110		675*790*2115	873*997*2143	690*790*2110		865*945*2090		1250*850*2130		1250*850*2130		1570*1010*2120		1570*1010*2120	
	27.1*31.0*82.9		26.6*31.1*83.3	34.5*39.3*84.4	27.1*31.0*82.9		34.1*37.2*82.3		49.2*33.5*83.9		49.2*33.5*83.9		61.8*39.8*83.5		61.8*39.8*83.5	
	21/42/42		23/48/48	12/26/26	21/42/42		12/26/26		8/18/18		8/18/18		6/12/12		6/12/12	
	Y		Y	Y	Y		Y		Y		Y		Y		Y	
	Y		Y	Y	Y		Y		Y		Y		Y		Y	
	Y		Y	Y	Y		Y		Y		Y		Y		Y	
	Y		Y	Y	Y		Y		Y		Y		Y		Y	
	Y		Y	Y	Y		Y		Y		Y		Y		Y	
	Y		4	4	Y		Y		Y		Y		Y		Y	
	Y		2	2	Y		Y		Y		Y		Y		Y	
	Y		Y	1	Y		Y		Y		Y		Y		Y	
	7/-		6	4(6 optional)	7/-		6/-		12/-		12/-		12/-		12/-	
onal	Y	Optional	Optional	Y	Optional	Y	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Y
	Optional		Optional	Optional	Optional		N/A		Optional		Optional		Optional		Optional	
	Optional		N/A	N/A	Optional		Optional		Optional		Optional		Optional		Optional	
E	UL	CE	CE	ENERGY STAR	CE	CE	ENERGY STAR	CE	UL	CE	UL	CE	UL	CE	CE	UL

Product appearance and specifications are subject to change without notice