PROMED

SERIES

-86 ℃ Self- Cascade System

MDF-86V838E   MDF-86V588E   MDF-86V340E   MDF-86V188E

SAFETY

- Malfunction alarms including high and low temperature, power failure, sensor error, clean-filter, and extremely high ambient , abnormal voltage, thermostat failure, low battery, condenser clean, door ajar.
- Capable of producing two types of alarm outputs, audible buzzer and visible flashing light.
- Door open feature standard and USB port for temperature date downloading standard on upright models.
- Remote alarm contacts.

INSTALLATION AND APPLICATION

- Wide rage operating voltage system from 187V to 242V designed to allow units installed in areas with poor voltage condition
- Suitable for 10℃ to 32℃ambient temperature

FILED PROVEN RELIABILITY

- Unique insulated inner door design for four separate storage compartments to minimize frost buildup inside the chamber.
- Specialized control system design for a well-balanced operation of cascade refrigeration system.
- Positive filed proven reliability record.

KEY DESIGN FEATURES

- Microprocessor-controlled system designed for controlled rage of -40℃ to -86℃ for cabinet space with 1℃ increment
- Settable high temperature and low temperature alarms.
- Automatic clean-filter alarm and sensor error alert.
- Adjustable storage shelf height
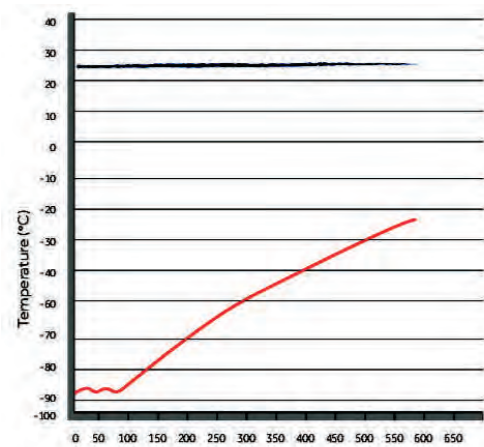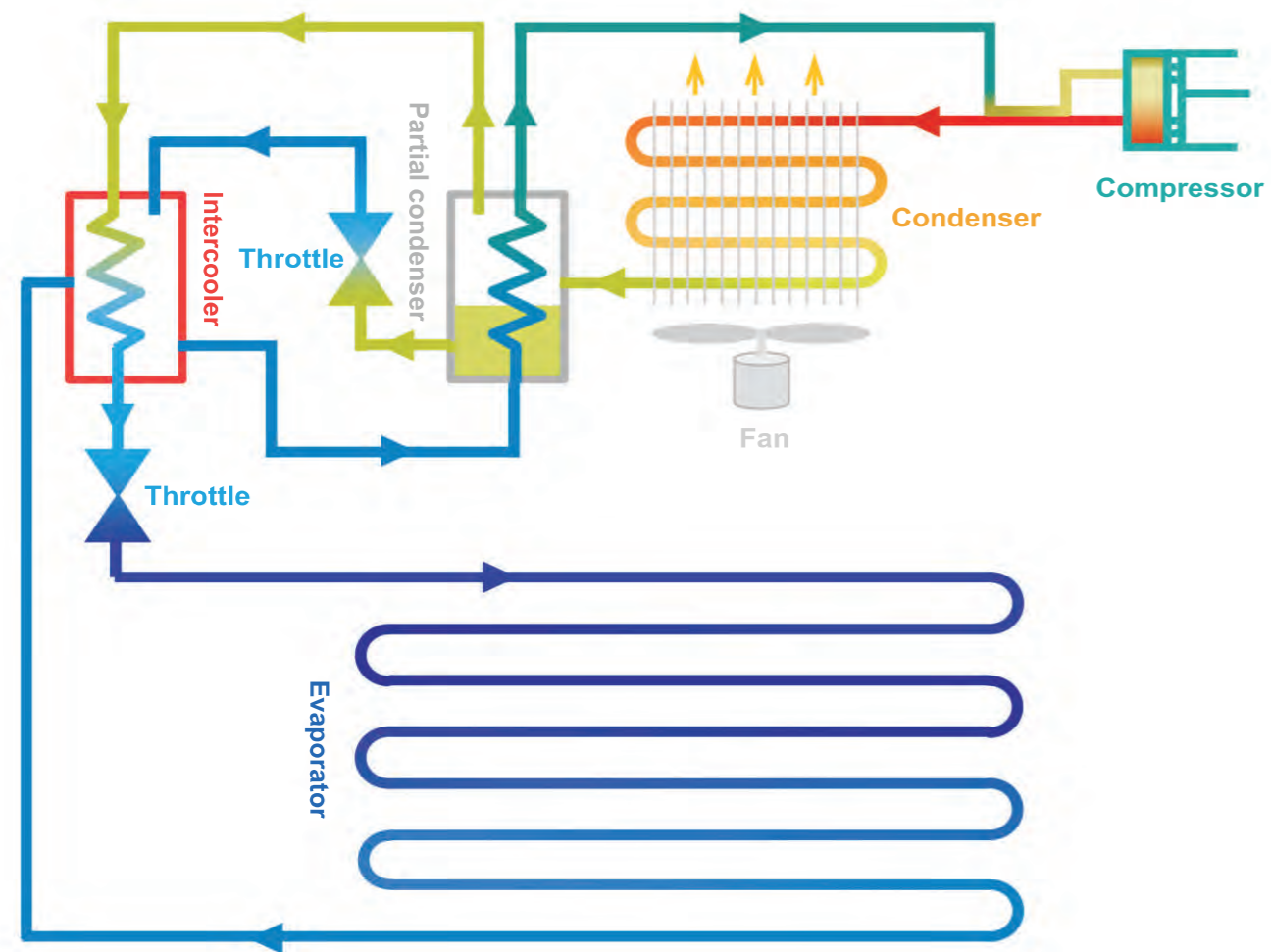- Optional temperature recorder, storage racks and storage box

ENERGY SAVING

- Unique door seal design for the minimum loss of cold temperature during a door opening.
- High performance VIP insulation panels to minimizecabinet heat gain and to improve temperature stability.

This product is specially designed and manufactured for long term storage of various biological product,including viruses, germs. erythrocytes, leucocytes and cutis. Applications can be found in blood banks, hospitals, epidemic prevention services, and research institutes, laboratories in electronic and chemical plants. bio-logical engineering institutes and marine fishery companies.

-86 ℃ Self- Cascade System

Compressor

Partial condenser

Condenser

Throttle

Intercooler

Fan

Throttle

Evaporator

Pull-up test at 25℃ ambient

Time(Min)

Pull-up test at 32℃ ambient

Time(Min)

-86 ℃ Self- Cascade System

3 individual inner doors can be opened independently to minimize frost buildup inside the chamber.
Unique door seal design for the minimum loss of cold temperature during a door opening.
Stainless Steel inner handle to ensure the door open conveniently even in the case of frost.

Excellent Doors Seals 5 gasket seal, 4 seals for out door, 1 seal for inner door which provides maximum protection against thermal intrusion

Big Door handle, easy to open

Controller Panel with press button Alarm status shows on it, easy for attention

Sample port on back for temperature monitoring conveniently

Big condenser for better heat dissipation, Ambient Temperature sensor

PROMED -86°C Self-Cascade System

-86℃ Self- Cascade System

Eye-level controls for quick and easy programming and viewing

Display for working temperature,setting temperature,high-alarming temperature, low-alarming temperature,password setting, and codes error

Audio alarm

Silencing sound alarm

Operating status display

Malfunction detection Visual alarm

Selecting function

Adjusting key

Alarm	Alarm Triggering Condition
High Temperature	Temperature reaches the warm alarm limit
Low Temperature	Temperature reaches the low alarm limit
Power Failure	Equipment loses power
Door Ajar	Door open period exceeds 5 mins
Probe Failure	1. Main cabinet temperature control sensor fails 2. Condenser sensor fails 3. Ambient sensor fails 4. Heat exchanger sensor fails 5. Heat exchanger temperature fails
Low Battery	Battery capacity runs low or battery switch is not turned on
Hot Condenser	1. Condensers filter element is clogged 2. Ambient temperature is too high
High Ambient Temperature	Ambient temperature exceeds 32°C
Other alarms	1. Thermostat failure 2. Abnorml voltage alarm

-86℃ Self- Cascade System

MDF-86H485   MDF-86H105

CHARACTERISTIC FUNCTION

- Safety door lock design to prevent abnormal door open
- Wide voltage for AC187V-AC242V
- Mute design for salient needed environment
- Digital display with big screen, easy to check
- Excellent thermal insulation peormance with silicone door seal design (second door seal optional)
- Mobile and fixable wheel for move

BOX

- The box is made of high quality cold rolled steel plate, and the surface is treated with advance anti-corrosion phosphatic spraying process with elegant orange powder coating. High-class 304 SUS inner box, durable and reliable.

SAFETY GUARANTEE

- Temperature high/low alarm, sensor malfunction alarm,thermostat failure alarm
- Audible and visible alarm
- Keyboard lockable, password protection o pe change running parameter randomly
- Display running parameter with real-time monioring to guarantee the stability of freezer

TEMPERATURE CONTROL MODE

- With the international famous brand computer temperature control system to keep the inner temperature accurate and stable. Temperature adjusted from -40℃~-86℃
- High light digital display
- High/low temperature alarm, the alarm temperature can be set as needed
- Platinum esiance temperature sensor, sensing temperature accurately
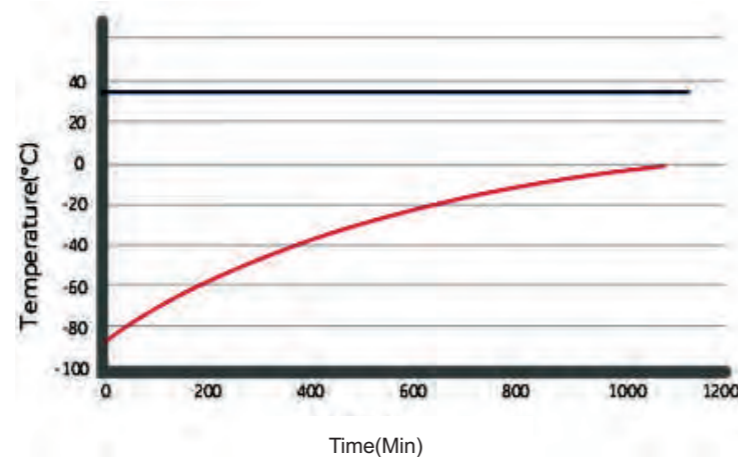
REFRIGERATION SYSTEM

- Imported brand compressor work with CFC-Free environmental refrigerant
- High density insulation foam layer with better heat preservation effect
- Optimized self-cascade refrigeration system to provide faster cooling speed with lower power consumption

PROMED -86°C Self-Cascade System

-86℃ Self- Cascade System
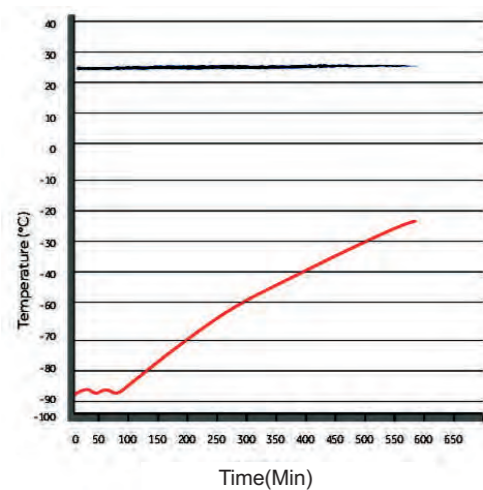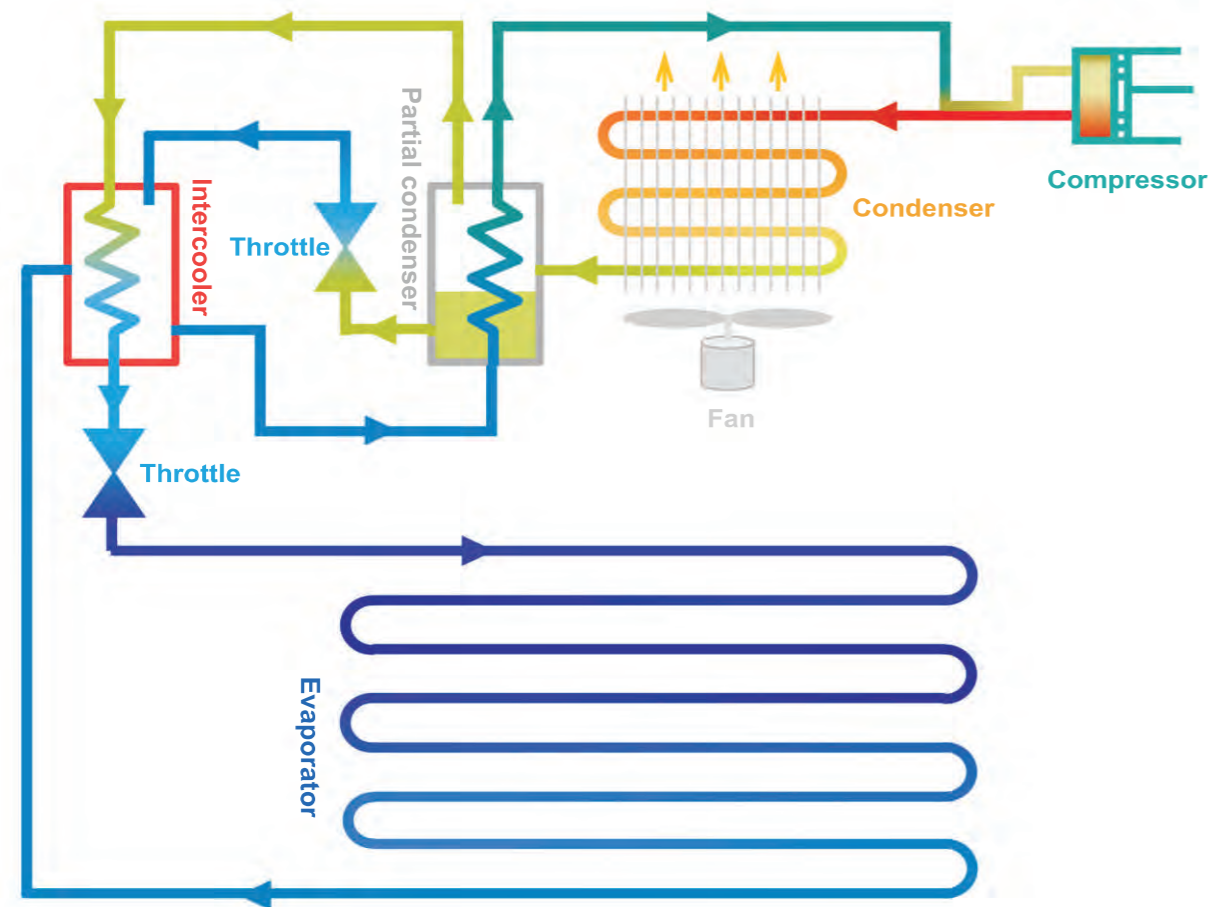
Pull-up test at 25℃ ambient

Pull-up test at 32℃ ambient

3、 BIOLOGICAL SAMPLE BANKS REQUIRE CONSUMABLES

Freezer Brand	Freezer Model	Capacity(L)	Shelves	Compartments	Size of Racks(H*D)	Racks per Shelf	Racks per Freezer	Boxes Per Rack	Boxes per Freezer	Box Size(mm)	Vials per Freezer
	MDF-86V408	408	3	4	5*4	4	16	20	288		28800
	MDF-86V408DL				4*4	4		16			
	MDF-86V588	588	3	4	5*5	4	16	25	400		40000
	MDF-86V588D										
	MDF-86V728	728	3	4	5*4+6*4	6	24	20+24	504		50400
	MDF-86V838	838	3	4	5*5	6	24	25	600		60000
	MDF-86V838D										
	MDF-86V188E	188	3	4	4*3	3	12	12	108	2*50	10800
	MDF-86V340E	340	3	4	4*4	3	12	16	192		19200
	MDF-86V408E	408	3	4	5*4	4	16	20	288		28000
					4*4	4		16			
	MDF-86V588E	588	3	4	5*5	4	16	25	400		40000
	MDF-86V838E	838	3	4	5*5	6	24	25	600		60000
	MDF-86V936	936	3	4	5*5	6	24	25	600		60000
	MDF-86V340II	340	3	4	4*4	3	12	16	192		19200
	MDF-86V688	688	3	4	4*4	6	24	16	384		38400
	MDF-86H105	105	/	1	11*1+6*1	/	4	11+6	34		3400
	MDF-86H485	485	/	1	11*1+6*1	/	30	11+6	300		30000