PHARMACEUTICAL & LABORATORY

EQUIPMENT
ACCESSORIES
SOLUTIONS

Cold-chain
Logistic
Solutions

Product
Catalog

Certification:

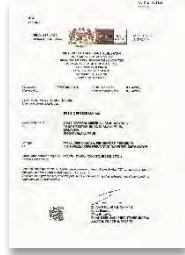ISO 13485 : 2003

GDPMD

BUATAN MALAYSIA
MADE IN MALAYSIA

Who We Are

ETS BIO Freeze Sdn Bhd is a high tech company specializes in design, manufacturing, develop latest technologies of Medical Blood Bank refrigerator, Pharmaceutical refrigerator and freezer, Vaccine Ice-lined storage unit, with more than 28 years of experience. The company is successfully presided perfect quality assurance system and certified by ISO13485, GDPMD, Local manufacturing and import license for medical devices.

Establishment License by MDA – As Manufacturer

Establishment License by MDA – Authorized Representative, Importer, Distributor

Certificate of Conformity – Good Distribution Practice For Medical Device (GDPMD)

ISO 13485 : 2003

What We Are Doing

✓ Refrigerators & freezers – Pharmaceutical, Laboratory, Combined Refrigerator-Freezer, Ultra-low Temperature, Low Temperature, Chest Freezers, Blast Freezers, Ice-Lined Refrigerators, Upright Freezers
✓ Blood Banks, Incubators, Shake Incubators, Growth Chambers, Oven, Portable Freezer & Combined Refrigerator-Freezer, Ice Flakes Maker
✓ Mortuary Freezers, S/S Body Trolley, Autopsy Table
✓ Cold Room
✓ Accessories - Remote alarm monitoring system, Digital Thermometer, Temperature Recorder, Temperature Controller
✓ Cold-chain Logistics Solution
✓ After-sale Service & Repair, Electric Safety Test (EST), Planned & Preventive Maintenance (PPM), Temperature Calibration
✓ Loaner units
✓ OEM Service

Table of Contents

Temperature Controllers

LED Digital Temperature Controller	Large LCD Digital Temperature Controller

Size: L135mm x H31mm	Size: L180mm x H 100mm

LED Digital Temperature Controller

- ✓ Equipped with tamper-resistant touchpad and a digital temperature display to the nearest 0.1℃.
- ✓ User-friendly - Temperature settings and alarm set points can be programmed quickly and easily.
- ✓ During power failure, battery back-up system supplies power to the monitor for at least 24 hours.
- ✓ The audio and visual alarms will be triggered when: -
  a) Hi & Low temperature
  b) A. C. failure
  c) Battery failure
  d) Door opened for more than 2 minutes
  e) Compressor failure
  f) Condenser is overheated
- ✓ Compressor delay start-up, to protect compressor restart current surging
- ✓ Auto defrost and sensor error
- ✓ Remote alarm contact provided for off-site monitoring
- ✓ Password protection - Lock-temperature function protects against tampering of set temperatures/values
- ✓ Off-set function for calibration use.
- ✓ Two (2) sensor probes available

Large LCD Digital Temperature Controller

- ✓ Equipped with tamper-resistant touchpad and a digital temperature display to the nearest 0.1℃.
- ✓ User-friendly - Temperature settings and alarm set points can be programmed quickly and easily.
- ✓ During power failure, battery back-up system supplies power to the monitor for at least 24 hours.
- ✓ The audio and visual alarms will be triggered when: -
  a) Hi & Low temperature
  b) A. C. failure
  c) Battery failure
  d) Door opened for more than 2 minutes
  e) Compressor failure
  f) Condenser is overheated
- ✓ Compressor delay start-up, to protect compressor restart current surging
- ✓ Auto defrost and sensor error
- ✓ Remote alarm contact provided for off-site monitoring
- ✓ Password protection - Lock-temperature function protects against tampering of set temperatures/values
- ✓ Off-set function for calibration use.
- ✓ Five (5) sensor probes available
- ✓ Temperature data logging graphical for 24 hours
- ✓ Input voltage indication
- ✓ Ambient temperature indication
- ✓ Compressor running hours data record

Blood Bank Refrigerators

+2 to +6°C (*Preset at +4°C*) | *Single-door*

Blood Bank Refrigerators MBR Series by ETS incorporates the latest in cabinet, refrigeration, temperature control and alarm monitoring features. The MBR series are designed to provide convenience, safe and reliable performance for optimal storage temperature environments necessary for wide range of life science, laboratory, pharmacy, biological, medical, clinical and industrial applications.

Features:
- ✓ User-friendly design
- ✓ Precise microcomputer temperature control
- ✓ Roll-out drawers
- ✓ Heated glass door
- ✓ Forced-air circulation for enhanced temperature stability
- ✓ Easy-to-read LCD temperature display
- ✓ Visual and audible alarm alerts

MBR 48E   MBR 100E   MBR 200E   MBR 300E/ 600E / 700E

Model	MBR 48E	MBR 100E	MBR 200E	MBR 300E	MBR 600E	MBR 700E
Dim. Ext (mm) W x D x H	530 x 450 x 680	570 x 670 x 1135	660 x 600 x 1500	660 x 700 x 1800	720 x 810 x 2070	800 x 800 x 2070
Dim. Int (mm) W x D x H	360 x 230 x 570	470 x 560 x 560	560 x 450 x 900	495 x 590 x 1200	615 x 680 x 1440	710 x 660 x 1510
Capacity/Blood Bag (450ml)	48L	100L	200L	300L	600L	700L
Drawers	2 nos.	2 nos.	3 nos.	4 nos.	6 nos.	6 nos.
Int. Chamber	Stainless Steel					
Ext. Chamber	Epoxy powder coated	Stainless Steel	Epoxy powder coated			
Temp. Controller	Large LCD display with digital microprocessor accuracy ±1°C c/w 5 probes					
Temp. Fluctuation	±1.0°C increment of temperature 0.1°C					
Insulation	60mm					
Internal Air Circulation	Forced-air					
Refrigerant	R134a CFC Free					
Condenser Fan Motor	1 no. air-cooled					
Defrost System	Auto Cycle Defrost					
Comp. Recip. Hermetic	1/5 HP	1/4 HP	1/3 HP	1/3 HP	1/2 HP	1/2 HP
Light	LED light with door switch (Manual ON/OFF)					
Door	Swing-out heated glass door (self-closing with lock)					
Door Lock / Castor	1 no. / Nil	1 no. / 4 nos.	1/4 HP	1 no. / 4 nos.	1 no. / 4 nos.	1 no. / 4 nos.
Access Port	1 no. 30mm each (for temperature calibration)					
Drainage	Auto evaporation for drain water					
Remote Alarm	Hi/Low, Power Failure					
Power Voltage	240Vac 50Hz Single Phase (60Hz for others)					
Backup Alarm Buzzle	DC 1.5V with power failure audible alarm 72 hours					
Temperature Recorder	7 days 24-hour Round Chart Recorder					
* Accessories (Optional)	Door Fan Switch					
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025					

Blood Bank Refrigerators

+2 to +6°C (*Preset at +4•C*) | *2-Door & 3-Door*

Blood Bank Refrigerators MBR Series by ETS incorporates the latest in cabinet, refrigeration, temperature control and alarm monitoring features. The MBR series are designed to provide convenience, safe and reliable performance for optimal storage temperature environments necessary for wide range of life science, laboratory, pharmacy, biological, medical, clinical and industrial applications.

Features:
- ✓ User-friendly design
- ✓ Precise microcomputer temperature control
- ✓ Roll-out drawers
- ✓ Heated glass door
- ✓ Forced-air circulation for enhanced temperature stability
- ✓ Easy-to-read LCD temperature display
- ✓ Visual and audible alarm alerts

MBR 1050E

MBR 1600E-3

Model	MBR 1050E	MBR 1600E-3
Dim. Ext (mm) W x D x H	1230 x 810 x 2070	1880 x 800 x 2070
Dim. Int (mm) W x D x H	1130 x 680 x 1440	1755 x 650 x 1430
Capacity/Blood Bag (450ml)	1,050L	1,600L
Drawers	12 nos.	15 nos.
Int. Chamber	Stainless Steel	
Ext. Chamber	Epoxy powder coated	Epoxy powder coated
Temp. Controller	Large LCD display with digital microprocessor accuracy ±1°C c/w 5 probes	
Temp. Fluctuation	±1.0°C increment of temperature 0.1°C	
Insulation	60mm	
Internal Air Circulation	Forced-air	
Refrigerant	R134a CFC Free	
Condenser Fan Motor	1 no. air-cooled	
Defrost System	Auto Cycle Defrost	
Comp. Recip. Hermetic	1/2 HP	3/4 HP
Light	LED light with door switch (Manual ON/OFF)	
Door	Swing-out heated glass door (self-closing with lock)	
Door Lock / Castor	2 nos. / 4 nos.	3 nos. / 4 nos.
Access Port	1 no. 30mm each (for temperature calibration)	
Drainage	Auto evaporation for drain water	
Remote Alarm	Hi/Low, Power Failure	
Power Voltage	240Vac 50Hz Single Phase (60Hz for others)	
Backup Alarm Buzzle	DC 1.5V with power failure audible alarm 72 hours	
Temperature Recorder	7 days 24-hour Round Chart Recorder	
* Accessories (Optional)	Door Fan Switch	
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025	

Pharmaceutical Refrigerators
+2°C to +8°C (E Series) | *Single-door*

ETS Pharmaceutical Refrigerators and freezers are designed and fabricated to meet the demanding requirements of scientific and laboratory applications. These refrigerators and freezers provide complete and integrated solutions for pharmaceuticals, medicines, biological products and reagents, vaccines, etc. Suitable for pharmacy, laboratories, drug stores, research centres, pharmaceutical factories/companies, hospitals, clinics, healthcare, epidemic prevention centres, etc. Wide ranges of models are offered to accommodate your needs and requirements.

Features:
- ✓ User-friendly design
- ✓ Precise microcomputer temperature control
- ✓ Standard alarms and safety features
- ✓ Forced-air circulation for enhanced temperature stability
- ✓ Easy-to-read LED temperature display
- ✓ Visual and audible alarm alerts
- ✓ Low-noise compressor

VC 48 / 70E   VC 100E   VC 200E   VC 300E

Model	VC 48	VC 70E	VC 100E	VC 200E	VC 300E
Dim. Ext (mm) W x D x H	530 x 450 x 680	480 x 500 x 900	570 x 670 x 1135	660 x 600 x 1500	600 x 700 x 1800
Dim. Int (mm) W x D x H	360 x 230 x 570	360 x 410 x 510	470 x 560 x 560	560 x 450 x 900	495 x 590 x 1200
Capacity	48L	70L	100L	200L	345L
Int. & Ext. Chamber	Epoxy powder coated		Stainless Steel	Epoxy powder coated	
Temp. Controller	Temp adjustable, LED display				
Temp Fluctuation	±1.0°C				
Internal Air Circulation	Forced-air				
Refrigerant	R134a CFC Free				
Glass Door	1 no. Heated Glass Door				
Door Lock / Castor	1 no. / Nil	1 no. / 4 nos.	1 no. / 4 nos.	1 no. / 4 nos.	1 no. / 4 nos.
Comp. Recip. Hermetic	100W	120W	180W	200W	200W
Power Voltage	230Vac 50Hz Single Phase (60Hz for others)				
Standard LED Alarm System					
- Hi/Low Alarm	√	√	√	√	√
- Remote Alarm Contact		√	√	√	√
- Power Failure		√	√	√	√
- 72-hour DC backup		√	√	√	√
* Accessories (Optional)	Door Fan Switch				
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025				

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Features:
- ✓ User-friendly design
- ✓ Precise microcomputer temperature control
- ✓ Standard alarms and safety features
- ✓ Forced-air circulation for enhanced temperature stability
- ✓ Easy-to-read LED temperature display
- ✓ Visual and audible alarm alerts
- ✓ Low-noise compressor

VC 500E / 600E / 700E / 800E

Model	VC 500E	VC 600E	VC 700E	VC 800E
Dim. Ext (mm) W x D x H	640 x 800 x 2070	700 x 800 x 2070	800 x 800 x 2070	800 x 810 x 2245
Dim. Int (mm) W x D x H	540 x 650 x 1430	600 x 600 x 1510	710 x 660 x 1510	710 x 67 x 1670
Capacity	500L	600L	700L	800L
Int. & Ext. Chamber	Epoxy powder coated			
Temp. Controller	Temp adjustable, LED display			
Temp Fluctuation	±1.0°C			
Internal Air Circulation	Forced-air			
Refrigerant	R134a CFC Free			
Glass Door	1 no. Heated Glass Door			
Door Lock / Castor	1 no. / 4 nos.	1 no. / 4 nos.	1 no. / 4 nos.	1 no. / 4 nos.
Comp. Recip. Hermetic	450W	400W	400W	400W
Power Voltage	230Vac 50Hz Single Phase (60Hz for others)			
Standard LED Alarm System				
- Hi/Low Alarm	√	√	√	√
- Remote Alarm Contact	√	√	√	√
- Power Failure	√	√	√	√
- 72-hour DC backup	√	√	√	√
* Accessories (Optional)	Door Fan Switch			
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025			

Pharmaceutical Refrigerators

+2°C to +8°C (E Series) | *2-door & 3-door*

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Features:
- ✓ User-friendly design
- ✓ Precise microcomputer temperature control
- ✓ Standard alarms and safety features
- ✓ Forced-air circulation for enhanced temperature stability
- ✓ Easy-to-read LED temperature display
- ✓ Visual and audible alarm alerts
- ✓ Low-noise compressor

VC 1050E / 1200E / 1400E / 1800E

VC 1600E-3 / 1800E-3 (3-door)

Model	VC 1050E	VC 1200E	VC 1400E	VC 1800E	VC 1600E-3	VC 1800E-3
Dim. Ext (mm) W x D x H	1260 x 800 x 2070	1440 x 800 x 2070	1540 x 850 x 2070	1630 x 810 x 2245	1880 x 800 x 2070	1630 x 810 x 2245
Dim. Int (mm) W x D x H	1150 x 650 x 1430	1315 x 650 x 1430	1390 x 710 x 1440	1485 x 720 x 1670	1755 x 650 x 1430	1485 x 720 x 1670
Capacity	1,050L	1,200L	1,400L	1,800L	1,600L	1,800L
Int. & Ext. Chamber	Epoxy powder coated					
Temp. Controller	Temp adjustable, LED display					
Temp Fluctuation	±1.0°C					
Internal Air Circulation	Forced-air					
Refrigerant	R134a CFC Free					
Glass Door	Heated Glass Double Door					
Door Lock / Castor	2 nos. / 4 nos.	2 nos. / 4 nos.	2 nos. / 4 nos.	2 nos. / 4 nos.	3 nos. / 4 nos.	3 nos. / 4 nos.
Comp. Recip. Hermetic	470W	470W	500W	650W	550W	650W
Power Voltage	230Vac 50Hz Single Phase (60Hz for others)					
Standard LED Alarm System						
- Hi/Low Alarm	√	√	√	√	√	√
- Remote Alarm Contact	√	√	√	√	√	√
- Power Failure	√	√	√	√	√	√
- 72-hour DC backup	√	√	√	√	√	√
* Accessories (Optional)	Door Fan Switch					
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025					

Pharmaceutical Refrigerators
+2°C to +8°C | *Single-door*

ETS Pharmaceutical Refrigerators and freezers are designed and fabricated to meet the demanding requirements of scientific and laboratory applications. These refrigerators and freezers provide complete and integrated solutions for pharmaceuticals, medicines, biological products and reagents, vaccines, etc. Suitable for pharmacy, laboratories, drug stores, research centres, pharmaceutical factories/companies, hospitals, clinics, healthcare, epidemic prevention centres, etc. Wide ranges of models are offered to accommodate your needs and requirements.

Features:
- ✓ User-friendly design
- ✓ Precise microcomputer temperature control
- ✓ Standard alarms and safety features
- ✓ Forced-air circulation for enhanced temperature stability
- ✓ Easy-to-read LED temperature display
- ✓ Visual and audible alarm alerts
- ✓ Low-noise compressor

VC 48

VC 300 / 500 / 600 / 800

Model	VC 48	VC 300	VC 500	VC 600	VC 800
Dim. Ext (mm) W x D x H	530 x 450 x 680	590 x 650 x 1660	640 x 800 x 2070	700 x 800 x 2070	790 x 810 x 2245
Dim. Int (mm) W x D x H	360 x 230 x 570	490 x 550 x 1200	540 x 650 x 1430	640 x 640 x 1430	660 x 720 x 1670
Capacity	48L	300L	500L	600L	800L
Int. & Ext. Chamber	Epoxy powder coated				
Temp. Controller	Temp adjustable, LED display				
Temp Fluctuation	±1.0°C				
Internal Air Circulation	Forced-air				
Refrigerant	R134a CFC Free				
Glass Door	Single Heated Glass Door				
Door Lock / Castor	1 no. / Nil	1 no. / 4 nos.	1 no. / 4 nos.	1 no. / 4 nos.	1 no. / 4 nos.
Comp. Recip. Hermetic	1/3 HP	1/4 HP	1/2 HP	1/2 HP	1/2 HP
Power Voltage	230Vac 50Hz Single Phase (60Hz for others)				
Standard LED Alarm System					
- Hi/Low Alarm	√	√	√	√	√
- Remote Alarm Contact		√	√	√	√
- Power Failure		√	√	√	√
- 72-hour DC backup		√	√	√	√
* Accessories (Optional)	Door Fan Switch				
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025				

Pharmaceutical Refrigerators

+2°C to +8°C | *2-door & 3-door*

ETS Pharmaceutical Refrigerators and freezers are designed and fabricated to meet the demanding requirements of scientific and laboratory applications. These refrigerators and freezers provide complete and integrated solutions for pharmaceuticals, medicines, biological products and reagents, vaccines, etc. Suitable for pharmacy, laboratories, drug stores, research centres, pharmaceutical factories/companies, hospitals, clinics, healthcare, epidemic prevention centres, etc. Wide ranges of models are offered to accommodate your needs and requirements.

Features:

✓ User-friendly design
✓ Precise microcomputer temperature control
✓ Standard alarms and safety features
✓ Forced-air circulation for enhanced temperature stability
✓ Easy-to-read LED temperature display
✓ Visual and audible alarm alerts
✓ Low-noise compressor

VC 1000 / 1200 / 1400   VC 1800   VC 1600-3 / 1800-3

Model	VC 1000	VC 1200	VC 1400	VC 1800	VC 1600-3	VC 1800-3
Dim. Ext. (mm) W x D x H	1260 x 800 x 2070	1440 x 800 x 2070	1540 x 850 x 2070	1630 x 790 x 2245	1878 x 800 x 2070	2055 x 810 x 2070
Dim. Int. (mm) W x D x H	1150 x 650 x 1430	1315 x 650 x 1430	1390 x 710 x 1440	1485 x 720 x 1670	1760 x 690 x 1430	1955 x 710 x 1430
Capacity	1,050L	1,200L	1,400L	1,800L	1,600L	1,800L
Int. & Ext. Chamber	Epoxy powder coated					
Temp. Controller	Temp adjustable, LED display					
Temp Fluctuation	±1.0°C					
Internal Air Circulation	Forced-air					
Refrigerant	R134a CFC Free					
Glass Door	Heated Glass Double Door				Heated Glass 3-Door	
No. of Shelves	10pcs	10pcs	10pcs	10pcs	15pcs	15pcs
Light	1pc	1pc	1pc	1pc	2pcs	2pcs
Door Lock / Castor	2 nos./4 nos.	2 nos./4 nos.	2 nos./4 nos.	2 nos./4 nos.	3 nos./4 nos.	3 nos./4 nos.
Comp. Recip. Hermetic	1/3 HP	1/4 HP	3/4 HP	3/4 HP	3/4 HP	3/4 HP
Power Voltage	230Vac 50Hz Single Phase (60Hz for others)					
Standard LED Alarm System						
- Hi/Low Alarm	√	√	√	√	√	√
- Remote Alarm Contact	√	√	√	√	√	√
- Power Failure	√	√	√	√	√	√
- 72-hour DC backup	√	√	√	√	√	√
* Accessories (Optional)	LCD Digital Display, USB Data Logger, Drawer(s), Chart Recorder, Fan door switch					
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025					

Pharmaceutical Refrigerators
+2°C to +8°C *(Sliding Door / Pass-thru Model)*

ETS Pharmaceutical Refrigerators and freezers are designed and fabricated to meet the demanding requirements of scientific and laboratory applications. These refrigerators and freezers provide complete and integrated solutions for pharmaceuticals, medicines, biological products and reagents, vaccines, etc. Suitable for pharmacy, laboratories, drug stores, research centres, pharmaceutical factories/companies, hospitals, clinics, healthcare, epidemic prevention centres, etc. Wide ranges of models are offered to accommodate your needs and requirements.

Features:
- ✓ User-friendly design
- ✓ Precise microcomputer temperature control
- ✓ Standard alarms and safety features
- ✓ Forced-air circulation for enhanced temperature stability
- ✓ Easy-to-read LED temperature display
- ✓ Visual and audible alarm alerts
- ✓ Low-noise compressor

VC 1000-SC   VC 1000-PT   VC 1500-PT

Model	VC 1000-SC	VC 1000-PT	VC 1500-PT
Dim. Ext (mm) W x D x H	1200 x 770 x 2045	1260 x 800 x 2070	1880 x 800 x 2070
Dim. Int (mm) W x D x H	1095 x 626 x 1393	1100 x 650 x 1430	1500 x 650 x 1430
Capacity	1,000L	1,000L	1,500L
Int. & Ext. Chamber	Epoxy coated mild steel		
Temp. Controller	Temp adjustable, LED display		
Internal Air Circulation	Forced-air		
Refrigerant	R134a CFC Free		
Glass Door	Heated Glass 3- Door		
Shelves	10pcs	10pcs	15pcs
Door (Self-closing)	Sliding Door 2pcs	4 Heated Glass Door (Pass-through)	6 Heated Glass Door (Pass-through)
Door Lock / Castor	2 nos. / 4 nos.	2 nos. / 4 nos.	3 nos. / 4 nos.
Comp. Recip. Hermetic	280W	280W	340W
Power Voltage	230Vac 50Hz Single Phase (60Hz for others)		
Standard LED Alarm System			
- Hi/Low Alarm	√	√	√
- Delay Start-up	√	√	√
- Auto Defrost	√	√	√
- 24-hour DC backup	√	√	√
* Accessories (Optional)	Door Fan Switch		
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025		

Low Temperature Freezer
0°C to -25°C

Our Low Temperature Freezers are designed and fabricated to provide reliable, frozen environments as low as -25°C to ensure safe storage of various samples/enzymes/culture media used in biological, life science, and other research applications. Unit sizes vary from 500L to 1,500L and complete with standard LED alarm system, door locks, heated glass door(s) and swivel castors.

Features:

- ✓ User-friendly design and easy-to-manage layout
- ✓ Precise microcomputer temperature control
- ✓ Auto-defrost
- ✓ Forced-air circulation for enhanced temperature stability
- ✓ Easy-to-read LED temperature display
- ✓ Visual and audible alarm alerts
- ✓ Low-noise compressor
- ✓ Large temperature ranges for storing goods: from 0°C to -25°C

VF 25U-500   VF 25U-1000   VF 25U-1500

Model	VF 25U-500	VF 25U-1000	VF 25U-1500
Dim. Ext (mm) W x D x H	640 x 800 x 2070	1260 x 800 x 2070	1880 x 800 x 2070
Dim. Int (mm) W x D x H	540 x 650 x 1430	1100 x 650 x 1430	1320 x 650 x 1430
Capacity	500L	1,050L	1,500L
Int. & Ext. Chamber	Epoxy coated mild steel		
Temp. Controller	Temp adjustable, LED display		
Internal Air Circulation	Forced-air		
Refrigerant	R134a CFC Free		
Glass Door	Heated Glass		
No. of Shelve(s)	4 nos.	8 nos.	12 nos.
Door Lock / Castor	2 nos. / 4 nos.	2 nos. / 4 nos.	3 nos. / 4 nos.
Comp. Recip. Hermetic	550W	550W	650W
Power Voltage	230Vac 50Hz Single Phase (60Hz for others)		
Standard LED Alarm System			
- Hi/Low Alarm	√	√	√
- Delay Start-up	√	√	√
- Auto Defrost	√	√	√
* Accessories (Optional)	Door Fan Switch		
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025		

Low Temperature Freezer
-10°C to -40°C

Our Low Temperature Freezers are designed and fabricated to provide specialized cold storage environment/long-term preservation for enzymes, vaccines, biological tissues and organs, reagents, as well as other temperature-sensitive materials at stable low temperatures range from -10°C to -40°C. We offer various unit sizes, ranging from 50L to 525L, includes digital temperature touch screen display, standard LED alarm system, inner doors for added security, and swivel castors. Suitable for scientific research institutions, hospitals, laboratories, sanitation and anti-epidemic station, electronics, chemical industry, machinery industry, fishery industry, etc.

Features:
- ✓ User-friendly design and easy-to-manage layout
- ✓ Precise microcomputer temperature control
- ✓ Auto-defrost
- ✓ Forced-air circulation for enhanced temperature stability
- ✓ Easy-to-read LED temperature display
- ✓ Visual and audible alarm alerts
- ✓ Low-noise compressor
- ✓ Large temperature ranges for storing goods: from -10°C to -40°C

VF 40U-50

VF 40U-135

VF 40U-200

VF 40U-280(D)

Model	VF 40U-50	VF 40U-135	VF 40U-200	VF 40U-280(D)
Dim. Ext (mm) W x D x H	540 x 620 x 1115	570 x 670 x 1135	700 x 655 x 1545	651 x 574 x 1656
Dim. Int (mm) W x D x H	361 x 429 x 406	470 x 520 x 550	506 x 466 x 1005	480 x 415 x 1460
Capacity	50L	135L	200L	280L
Internal Chamber	Stainless Steel	Stainless Steel	Stainless Steel	ABS
External Chamber	Epoxy Mild Steel	Stainless Steel	Epoxy Mild Steel	Epoxy Mild Steel
Temp. Controller	Temp adjustable, LED display			
Internal Air Circulation	Direct			
Refrigerant	R404a CFC Free			
Drawer / Shelves	3 nos. / 0	0 / 2 nos.	0 / 2 nos.	7 nos.(Adjustable) / Nil
Door Lock / Castor	1 no. / 4 nos.	1 no. / 4 nos.	1 no. / 4 nos.	3 nos. / 4 nos.
Comp. Recip. Hermetic	260W	280W	280W	430W
Power Voltage	230Vac 50Hz Single Phase (60Hz for others)			
Standard LED Alarm System				
- Hi/Low Alarm	√	√	√	√
- Power Failure	√	√	√	√
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025			

Low Temperature Freezer

-10°C to -40°C

Our Low Temperature Freezers are designed and fabricated to provide specialized cold storage environment/long-term preservation for enzymes, vaccines, biological tissues and organs, reagents, as well as other temperature-sensitive materials at stable low temperatures range from -10°C to -40°C. We offer various unit sizes, ranging from 50L to 525L, includes digital temperature touch screen display, standard LED alarm system, inner doors for added security, and swivel castors. Suitable for scientific research institutions, hospitals, laboratories, sanitation and anti-epidemic station, electronics, chemical industry, machining industry, fishery industry, etc.

Features:

✓ User-friendly design and easy-to-manage layout
✓ Precise microcomputer temperature control
✓ Auto-defrost
✓ Forced-air circulation for enhanced temperature stability
✓ Easy-to-read LED temperature display
✓ Visual and audible alarm alerts
✓ Low-noise compressor
✓ Large temperature ranges for storing goods: from -10°C to -40°C

VF 40U-328   VF 40U-525

Model	VF 40U-328	VF 40U-500	VF 40U-525
Dim. Ext (mm) W x D x H	955 x 805 x 1695	740 x 800 x 2070	880 x 812 x 1869
Dim. Int (mm) W x D x H	665 x 525 x 1455	540 x 650 x 1430	684 x 612 x 1184
Capacity	328L	500L	525L
Internal Chamber	Stainless Steel	Epoxy Mild Steel	ABS
External Chamber	Epoxy Mild Steel	Epoxy Mild Steel	Epoxy Mild Steel
Temp. Controller	Temp adjustable, LED display		
Internal Air Circulation	Direct		
Refrigerant	R134a CFC Free		
Drawer / Shelves	4pcs. Shelves (5 Compartments)	3pcs. Shelves (4 Compartments)	10 nos. Drawers (6-small + 4-large)
Door Lock / Castor	1 no. / 4 nos.	1 no. / 4 nos.	2 nos. / 4 nos.
Comp. Recip. Hermetic	430W	430W	430W
Power Voltage	230Vac 50Hz Single Phase (60Hz for others)		
Standard LED Alarm System			
- Hi/Low Alarm	√	√	√
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025		

Low Temperature Upright Freezer
-10°C to -25°C (Manual Defrost)

Our Low Temperature Upright Freezers are designed and fabricated to provide reliable, frozen environments as low as -25°Cto ensure safe storage of various samples/enzymes/culture media used in biological, life science, and other research applications. Units are complete with digital temperature touch screen display, standard LED alarm system, inner doors for added security, and swivel castors.

Features:
- ✔ User-friendly design and easy-to-manage layout
- ✔ Precise microcomputer temperature control
- ✔ Direct cooling with Manual Defrost
- ✔ Easy-to-read LED temperature display
- ✔ Visual and audible alarm alerts
- ✔ Low-noise compressor
- ✔ Large temperature ranges for storing goods: from -10°C to -25°C

VF 25U-270(M)

VF 25U-350(M)

VF 25U-500(M)

VF 25U-700(M)

Model	VF 25U-270(M)	VF 25U-350(M)	VF 25U-500(M)	VF 25U-700(M)
Dim. Ext (mm) W x D x H	673 x 676 x 1630	673 x 676 x 1886	890 x 2005 x 1009	770 x 830 x 1955
Dim. Int (mm) W x D x H	508 x 455 x 1137	508 x 455 x 1393	450 x 1200 x 580	650 x 700 x 1520
Capacity	270L	350L	450L	700L
Internal Chamber	ABS			
Temp. Controller	Large LCD Display			
Door Lock	1 no.	2 nos.	2 nos.	1 no.
Castor	4 nos.	4 nos.	4 nos.	4 nos.
Internal Cooling	Direct			
Plastic Drawers	7 nos.	10 nos.	12 nos.	14 nos.
Refrigerant	CFC Free			R404a (HCFC)
Insulation Foaming	60mm	60mm	60mm	60mm
Power Voltage	230Vac 50Hz Single Phase (60Hz for others)			
Standard LED Alarm System				
- Hi/Low Alarm	√	√	√	√
- Power Failure	√	√	√	√
- Low Battery	√	√	√	
- Door Ajar	√	√	√	√
- Dirty Condenser	√	√	√	√
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025			

Ultra-Low Temperature Freezer
-10°C to -86°C

Our Ultra Low Temperature Freezers are designed to preserve biological samples/specimens at stable temperatures from -10°C to as low as -86°C. These ULT Freezers are available in both upright and chest-types, and come in various sizes to fit all your research application needs. Applications can be found in blood banks, hospitals, epidemic prevention services, research institutes, laboratories in electronic and chemical plants, biological engineering institutes and marine fishery companies.

Features:
- ✔ Easy to operate
- ✔ Precise microcomputer temperature control
- ✔ Auto-defrost
- ✔ Forced-air circulation for enhanced temperature stability
- ✔ Easy-to-read LED temperature display
- ✔ Visual and audible alarm alerts
- ✔ High efficiency refrigeration system with double compressors
- ✔ Low-noise compressor
- ✔ Large temperature ranges for storing

Upright Freezer   Chest Freezer   Upright Freezer

VF 86U-188   VF 86H-400 / 500   VF 86U-588 (VIP)

Model	VF 86U-188	VF 86U-588 (VIP)	VF 86H-400	VF 86H-500
Dim. Ext (mm) W x D x H	830 x 810 x 1607.5	1191 x 871 x 1994.5	1890 x 790 x 1030	2185 x 790 x 1030
Dim. Int (mm) W x D x H	465 x 465 x 830	606 x 738 x 1310	1180 x 500 x 670	1460 x 500 x 670
Capacity	188L	588L	400L	500L
Internal Chamber	Stainless Steel			
Temp. Controller	Digital display microprocessor, increment 0.1°C with compressor delay start-up temperature offset for calibration mode, auto defrost high & low alarm			
Temp. Pull Down Rate	Ambient +25°C to -86°C approx. 3 to 5 hours			
Internal Air Circulation	Direct			
Refrigerant	CFC-Free Mixed Gas			
Insulation Foaming	100mm	100mm	100mm	100mm
Door Lock / Castor	1 no. / 4 nos.	1 no. / 4 nos.	1 no. / 4 nos.	1 no. / 4 nos.
Adjustable Shelves	2pcs	3pcs	Nil	Nil
Inner Door	1 no.	2 nos.	Nil	Nil
Comp. Recip. Hermetic	2 x 1/2 HP	2 x 3/4 HP	2 x 3/4 HP	2 x 3/4 HP
Power Voltage	220Vac 50Hz Single Phase (60Hz for others)			
Standard LED Alarm System				
- Hi/Low Alarm	√	√	√	√
- Power Failure	√	√	√	√
- Low Battery	√	√	√	√
- Door Ajar	√	√	√	√
- Condenser Dirty Alarm	√	√	√	√
- High Ambient Temp. Alarm		√		
* Accessories (Optional)	Door Fan Switch			
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025			

Low Temperature Chest Freezer
0°C to -25°C

We offer wide range of sizes for Low Temperature Chest Freezer, all complete with product features most requested by the laboratory and medical industry. We offer quality selection to meet the specific needs of research laboratories, hospitals, pharmacies, veterinary offices, medical clinics, and other facilities with high demands for stable, low temperature storage.

Features:
- ✔ Precise microcomputer temperature control
- ✔ Simple to operate
- ✔ Auto-defrost
- ✔ Forced-air circulation for enhanced temperature distribution
- ✔ Easy-to-read LED temperature display
- ✔ Visual and audible alarm alerts
- ✔ Low-noise compressor
- ✔ Large temperature ranges for storing goods: from 0°C to -25°C

VF 25H-100 / 200

VF 25H-300

VF 25H-560

VF 25H-300(S) / 500(S) / 1500(S)

Model	VF 25H-100	VF 25H-200	VF 25H-300	VF 25H-560	VF 25H-300(S)	VF 25H-500(S)	VF 25H-1500(S)
Dim. Ext (mm) W x D x H	560 x 485 x 830	940 x 550 x 845	1055 x 750 x 835	1655 x 750 x 835	1760 x 710 x 865	2160 x 760 x 855	2950 x 1065 x 865
Dim. Int (mm) W x D x H	430 x 360 x 690	840 x 450 x 700	930 x 530 x 700	1530 x 530 x 700	1000 x 430 x 710	1350 x 520 x 710	2185 x 915 x 710
Capacity	100L	200L	300L	560L	300L	500L	1,500L
Internal Chamber	Aluminium				Stainless Steel		
External Chamber	Mild Steel				Stainless Steel		
Input Power	100W	100W	300W	380W	300W	380W	1200W
Door Lock	1 no.	1 no.	1 no.	1 no.	1 no.	1 no.	1 no.
Temp. Controller	Digital	Digital	Digital	Digital	Digital	Digital	Digital
Castor	Nil	4 nos.	4 nos.	4 nos.	4 nos.	4 nos.	4 nos.
Internal Air Circulation	Direct						
Refrigerant CFC	R134a						
Power Voltage	220Vac 50Hz Single Phase (60Hz for others)						
Alarm System							
- Hi/Low Alarm	√	√	√	√	√	√	√
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025						

Low Temperature Chest Freezer
-10°C to -40°C

We offer wide range of sizes for Low Temperature Chest Freezer, all complete with product features most requested by the laboratory and medical industry. We offer quality selection to meet the specific needs of research laboratories, hospitals, pharmacies, veterinary offices, medical clinics, and other facilities with high demands for stable, low temperature storage. Used for the refrigeration of blood plasma, reagent, vaccines, biological products and other various products which require cryopreservation, etc.

Features:
- ✓ Precise microcomputer temperature control
- ✓ Simple to operate
- ✓ Optimized evaporation system and condensation system, strong cooling, low energy consumption.
- ✓ Visual and audible alarm alerts
- ✓ Low-noise compressor
- ✓ Large temperature ranges for storing goods: from -10°C to -40°C

VF 40H-105   VF 40H-300   VF 40H-390   VF 40H-485

Model	VF 40H-105	VF 40H-300	VF 40H-390	VF 40H-485
Dim. Ext (mm) W x D x H	680 x 580 x 935	1145 x 710 x 838	1412 x 710 x 838	1695 x 805 x 955
Dim. Int (mm) W x D x H	480 x 380 x 665	985 x 504 x 661	1247 x 504 x 661	1455 x 525 x 665
Capacity	105L	300L	390L	485L
Internal & External Chamber	Epoxy Coated Mild Steel			
Temp. Controller	Temp adjustable, LED digital microprocessor PID			
Temperature Fluctuation	±2.0°C			
Cooling System	Direct Cooling Wall			
Refrigerant CFC	R134a/R404a CFC-free			
Door Lock / Castor	1 no. / 4 nos.	1 no. / 4 nos.	1 no. / 4 nos.	1 no. / 4 nos.
Basket	1pc	1pc	2pcs	2pcs
Comp. Recip. Hermetic	260W	400W	430W	430W
Power Voltage	230Vac 50Hz Single Phase (60Hz for others)			
Alarm System				
- Hi/Low Alarm	√	√	√	√
- Power Failure	Optional			
- Remote Alarm Contact	Optional			
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025			

Stability Chamber (Incubator)
+4°C to +60°C

Our Stability Chambers (Incubators) are designed to keep drugs, cells, plants, tissue, fungal cultures and other samples which require accurate temperature control and consistent uniformity. Ideal for a variety of applications, e.g. plant and insect studies, fermentation studies, bacterial culturing, water pollution testing and enzyme digestion studies.

Features:
- ✓ Precise microcomputer temperature control
- ✓ Simple to operate
- ✓ Optimized evaporation system and condensation system, strong cooling, low energy consumption.
- ✓ Visual and audible alarm alerts
- ✓ Low-noise compressor
- ✓ Large temperature ranges: from +4°C to +60°C

VI 100   VI 300 / 500   VI 1000 / 1200   VI 1500

Model	VI 100	VI 300	VI 500	VI 600	VI 1000	VI 1500
Dim. Ext (mm) W x D x H	570 x 670 x 1135	590 x 650 x 1660	640 x 800 x 2070	700 x 800 x 2070	1200 x 810 x 2070	1880 x 800 x 2070
Dim. Int (mm) W x D x H	540 x 520 x 550	490 x 550 x 870	540 x 650 x 1430	640 x 640 x 1430	1130 x 680 x 1430	1780 x 650 x 1430
Capacity	100L	300L	500L	600L	1,000L	1,500L
Int. & Ext. Chambers	Epoxy Coated Mild Steel					
Temp. Controller	Temp adjustable, LED digital microprocessor PID					
Temp/ Fluctuation	±0.1°C PID Control					
Internal Air Circulation	Forced-air					
Refrigerant	R134a/R407 CFC Free					
Comp. Recip. Hermetic	100W	200W	250W	280W	400W	500W
Door Lock / Castor	1 no. / 4 nos.	1 no. / 4 nos.	1 no. / 4 nos.	1 no. / 4 nos.	1 no. / 4 nos.	3 nos. / 4 nos.
No. of Shelve(s)	2 nos.	4 nos.	5 nos.	5 nos.	10 nos.	15 nos.
Power Voltage	230Vac 50Hz Single Phase (60Hz for others)					
Access Port 60mm	1 no.					
Alarm System						
- Hi/Low Alarm	√	√	√	√	√	√
- Power Failure	√	√	√	√	√	√
- Remote Alarm Contact	√	√	√	√	√	√
- 72-hour Display & Backup	√	√	√	√	√	√
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025					

Laboratory Combined Refrigerator –Freezer
(for Blood Bank & Pharmacy)
-10°C to -40°C (Freezer) | +2°C to +8°C (Refrigerator)

In line with the growing emphasis on proper storage of laboratory and pharmaceutical materials, our Laboratory Combined Refrigerator-Freezer is the combo which combines high performance refrigeration control and monitoring systems with energy efficient and cost-effective chamber design.

Features:
- ✓ Precise microcomputer temperature control
- ✓ Simple to operate
- ✓ Forced-air circulation for enhanced temperature distribution and uniformity
- ✓ Combined refrigerator-freezer for space saving
- ✓ Visual and audible alarm alerts
- ✓ Low-noise compressor

VC F-180   VC F-400

Model	VC F-180	VC F-400
Overall Dim. Ext (mm) W x D x H	570 x 670 x 1450	750 x 790 x 2070
Overall Capacity	180L	465L
Int. Chamber / Ext. Chamber	Stainless Steel 304	Stainless Steel 304 /Epoxy Coated Mild Steel
Temp. Controller	Temp adjustable, LED digital microprocessor PID	
Refrigerator		
❖ Dim. Int (mm) W x D x H	470 x 520 x 550	610 x 610 x 900
❖ Capacity	135L	335L
❖ Temp. Accuracy	±1°C	
❖ Temp. Control	Forced-air circulation Auto Defrost +2°C to +8°C with 3 Drawers/Shelves	
❖ Refrigerant	R404a CFC-free	
Freezer		
❖ Dim. Int (mm) W x D x H	470 x 520 x 200	610 x 610 x 350
❖ Capacity	50L	130L
❖ Temp. Accuracy	±2°C	
❖ Temp. Control	Direct Cooling -10°C to -25°C	Direct Cooling -10°C to -40°C
❖ Refrigerant	R134a CFC-free	
Door	Freezer – 1 no. solid door & Refrigerator - 1 no. heated glass door	
Door Lock / Castor	2 nos. / 4 nos.	2 nos. / 4 nos.
Drawers / Shelves		SS 4 nos. / 4 nos.
Compressor	3/4 Semi hermetic	
Condenser	Air cooled fin and tube	
Drainage	Hot pipe evaporation type	
Power Voltage	240Vac 50Hz Single Phase (60Hz for others)	
Alarm System		
- Hi/Low Alarm	√	√
- Power Failure	√	√
- Remote Alarm Contact	√	√
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025	

Cold room / Freezer / Blast
Walk-in Room Design

The cold rooms are specifically designed to provide controlled temperature environments for numerous applications which require bigger capacity or space, including packaging of food & beverages or medicines, stability storage, biological research, shelf life testing, etc. The cold rooms/walk-in chillers can be made-to-order in accordance to your requirements.

Features:

✓ Can be customized according to your requirement(s) to suit varying capacities, applications, temperature, etc.
✓ Cold room, freezer or combination models
✓ Modular construction makes installation fast and easy
✓ Visual and audible alarm alerts
✓ Low-noise

Model	VC CT-1	VC FR-1
Capacity	Option	Option
Dim. Int (ft) W x D x H	10 x 10 x 9	10 x 10 x 9
Int. & Ext. Chamber	Epoxy Coated Mild Steel	
Temp. Range	0°C to 8°C (temp adjustable) -20°C (temp adjustable)	
Temperature Controller	LED Digital display microprocessor, increment 0.1°C with compressor delay start-up temperature offset for calibration mode, auto defrost	
Insulation Foaming	3 inches	4 inches
Door Lock	1 no.	1 no.
Internal Cooling	Forced-air Circulation	
Refrigerant	R134a	R404a
Power Voltage	220/415Vac 50Hz Single/3 Phase	
Alarm System	1 set	1 set
Optional Item	Internal & external stainless steel, temperature recorder round chart	
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025	

Blast Freezer
-10°C to -45°C

For long-term and hygienic foodstuffs preservation, some food must be blast frozen to -18°C or -40°C (low temperature). "Frozen" means to transfer the fluid inside food to ice crystal. Therefore, preserving foodstuffs in low temperature environment which penetrate the foodstuffs and make the centre of foodstuffs low down to -40°C rapidly, that is blast freeze. Blast freezer can freeze foodstuffs in high speed, creating smaller ice crystals and will not damage food. No matter raw, cooked or semi-finished foodstuffs can be preserved perfectly by blast freezer, after defrosting; foodstuffs can maintain the original delicacy and fresh without quality doubt.

Features:

✓ Intuitive touch control panel – Easy to use
✓ Modular construction makes installation fast and easy
✓ Visual and audible alarm alerts
✓ Easy to remove shelf support for simple cleaning and maintenance
✓ Both internal and external chamber are constructed by stainless steel

VF 45B-180

VF 45B-450

VF 45B-850

VF 45B-1100

VF 45B-4000

Stainless Steel Cart

The Model	VF 45B-180	VF 45B-450	VF 45B-850	VF 45B-1100	VF 45B-4000
Dim. Ext (mm) W x D x H	880 x 850 x 1015	880 x 850 x 1645	1000 x 1100 x 2350	1360 x 1110 x 2060	2900 x 1650 x 2200
Stainless Steel Trays	5pcs	10pcs	20pcs	22pcs	Double Carts 40
Capacity	180L	350L	850L	1900L	4000L
Stainless Steel Tray Dia.	400mm x 600mm				
Int. & Ext. Chamber	Stainless Steel				
Temp Range	-10°C to -45°C (temp adjustable)				
Temp Fluctuation	±1°C to 2°C				
Internal Air Circulation	Forced-air				
Refrigerant	R507 HCFC				
Comp Reci Hermatic	1500W	2500W	3000W	3500W	5 HP x 2
Door Lock / Castor(s)	1 no. / 4pcs	1 no. / 4 pcs	1 no. / 4pcs	2 nos. / 4pcs	2 nos. / Nil
Temp Pull Down Rate	Ambient +25°C to -86°C approx. 40 mins				
Standard LED Alarm	Hi/Low Alarm				
Power Voltage	230Vac 50Hz Single or 415Vac 3 Phase (60Hz for others)				
Fan Door Switch	Built-in				
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025				

Ice-Lined Refrigerator
0°C to +8°C (for Vaccine / Plasma)

The Ice-lined Refrigerators operate within temperature range of 0°C to +8°C come with highly efficient backup system up to 48 hours. Ideal for safe and proper storage of vaccines and medical supplies.

Features:
- ✓ More accuracy and more reliable with microprocessor control and digital display, power ON/OFF indicator
- ✓ Lockable design to prevent unauthorized access
- ✓ Ambient temperature range from +5°C to +43°C
- ✓ Long hold-over time (up to 48 hours) in case of power failure
- ✓ CFC free insulation and refrigerant

VC 100-IL / 150-IL / 220-IL / 500-IL

Model	VC 100-IL	VC 150-IL	VC 220-IL	VC 500-IL
Dim. Ext (mm) W x D x H	1000 x 770 x 880	1086 x 850 x 880	1286 x 855 x 885	1700 x 815 x 1020
Dim. Int (mm) W x D x H	420 x 420 x 600	500 x 500 x 600	705 x 493 x 634	1070 x 610 x 715
Capacity	100L	150L	220L	500L
Temp. Controller	LED Digital Microprocessor / Auto defrost, Delay start-up, Offset mode			
Backup Time	Hold 48 hours when power cuts off			
Internal Chamber	Stainless Steel			
External Chamber	Epoxy Coated Mild Steel			
Temp. Range	Ambient +5°C to +40°C		+2°C to +8°C	
Temp. Fluctuation	±1°C			
Internal Circulation	Gravity		Direct Cooling	
Insulation Foaming	100mm			
Condenser	Tube and tube		Air-cooled fin and tube	Remote air-cooled Fin and tube
Basket/Castor	1 no. / 4 nos.	2 nos. / 4 nos.	2 nos. / 4 nos.	4 nos. / 6 nos.
Door	Lid 1 no. Solid			
Refrigerant	R134a			
Power Voltage	240Vac 50Hz Single-phase			
Standard LED Alarm System				
- Hi/Low Alarm	✓	✓	✓	✓
- Power Failure				✓
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025			

Ice Flakes Maker

Our Ice Flakes Makers are designed to produce ice flakes with the capacity ranging from 30kg/24hrs to 200kg/24hrs with rapid cooling speed. The Ice Flakes Makers can be applied in hospitals, supermarket/hypermarket chain stores, hotels, fishing refrigeration, medical applications, chemical products, food processing, vegetable preservation industries, etc.

Features:
- ✔ Constructed by high quality stainless steel, they are anti-corrosive and durable
- ✔ Easy to operate - Ice-making process is fully computerized
- ✔ Compact and space saving
- ✔ CFC free refrigerant

Model	IM 20	IM 30	IM 50	IM 70	IM 85
Dia. Ext (mm) W x D x H	493 x 300 x 547	493 x 300 x 547	543 x 380 x 722	611 x 548 x 883	611 x 548 x 883
Storage Tank (kg)	10	10	15	15	25
Capacity (kg/24hrs)	20	30	50	70	85
Int. & Ext. Chamber	Stainless Steel				
Refrigerant	R134a CFC-free				
Input Power	180W	180W	280W	280W	420W
Weight	32kg	32kg	40kg	40kg	57kg
Power Voltage	230Vac 50Hz Single Phase (60Hz for others)				
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025				

Model	IM 100	IM 130	IM 150	IM 200	IM 300
Dia. Ext (mm) W x D x H	611 x 548 x 883	611 x 635 x 945	611 x 635 x 945	641 x 680 x 1102	641 x 680 x 1102
Storage Tank (kg)	25	35	35	55	55
Capacity (kg/24hrs)	100	130	150	200	300
Int. & Ext. Chamber	Stainless Steel				
Refrigerant	R134a CFC-free				
Input Power	420W	680W	680W	1370W	1370W
Weight	57kg	85kg	85kg	100kg	100kg
Power Voltage	230Vac 50Hz Single Phase (60Hz for others)				
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025				

Portable Freezer & Combined Refrigerator-Freezer

ETS Compressor Portable Freezer (DC)

VF PF-12DC

VF PF-35DC

These portable freezers are lightweight. They double as great bar fridge, or an extra cooler to frozen or chilled keep samples/specimens/plasma in the vehicle while you are on the go. The entire portable freezers are built using an impact resistant polypropylene exterior that offers outstanding protection. Simply set the temperature and the electronic temperature controller does the rest.

ETS Combined Refrigerator/Freezer (DC)
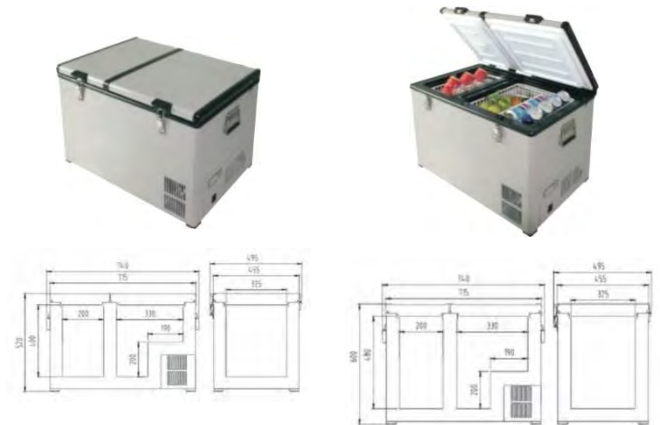
VF PF-60DC

VF PF-80DC

The Combined Refrigerator/Freezers are in a league of their own. With two independently controlled compartments, the configuration is up to you. Choose from the typical setup of fridge/freezer, or set both compartments at the same temperature to create a larger refrigerator or freezer.

Model	VF PF-12DC	VF PF-35DC	VF PF-60DC	VF PF-80DC
Dim. Ext (mm) W x D x H	190 x 505 x 385	355 x 630 x 415	740 x 495 x 520	740 x 495 x 600
Dim. Int (mm) W x D x H	125 x 370 x 300	250 x 496.5 x 303.5	200 x 325 x 400 / 330 x 325 x 400	200 x 325 x 480 / 330 x 325 x 480
Capacity	15L	35L	60L	80L
Internal Chamber	ABS			
External Chamber	Epoxy Coated Mild Steel			
Temperature Control / Range	LED Digital Display / +10°C to -22°C			
Temperature Fluctuation	±1.0°C			
Internal Cooling System	Direct Cooling Wall			
Refrigerant	R134a CFC-free			
Power Voltage	12VAC/DC or 24VAC/DC			
Display	Digital (use DC battery)			
Net Weight (KG)	8	16	29	31.5
Hold Temperature w/o DC supply at +2°C to +8°C	Up to 3 to 4 hours			
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025			

Solar Powered AC/DC Compressor Freezer

AC Supply →
Battery
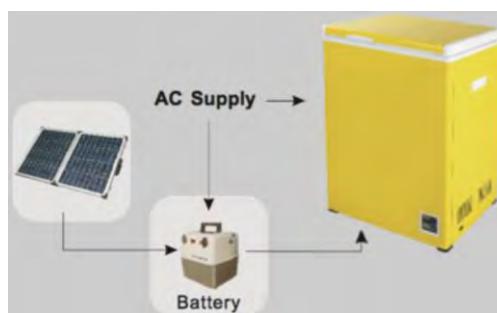
Features:
✓ Environmental friendly – rechargeable by solar power
✓ Convenient

Mortuary Refrigerator
+2°C to +8°C

The mortuary refrigerators are developed for the storage of corpses for a short or long period. The units are made of stainless steel for long lasting use. Hydraulic trolley, stainless steel body trolley, autopsy table as well as other accessories to complete the range.

Features:
- ✓ Chamber construction: Fully made of stainless steel
- ✓ Compressor – sealed-type compressor with gas aspiration cooling, complete with total protection motor
- ✓ Digital read-out electronic control panel
- ✓ CFC free insulation and refrigerant
- ✓ Installed with standard LED alarm system

MOT 2B   MOT 3B   MOT 4B   MOT 2B-SO

Model	MOT 2B	MOT 3B	MOT 4B	MOT 2B (Side-open)
Dim. Ext (mm) W x D x H	2500 x 1070 x 1960	2500 x 1070 x 2590	2580 x 2140 x 1960	2550 x 1120 x 1960
Dim. Int (mm) W x D x H	2270 x 860 x 1220	2270 x 860 x 1800	2270 x 1720 x 1220	2270 x 860 x 1220
Door (Swing-out) L x W	2 nos. – 580mm x 860mm	3 nos. – 580mm x 860mm	4 nos. – 580mm x 860mm	2 nos. – 2100mm x 540mm
Stainless Steel Tray	2 nos. – W610mm x L2130mm	3 nos. – W610mm x L2130mm	4 nos. – W610mm x L2130mm	2 nos. – W600mm x L2130mm
Int. & Ext. Chamber	Stainless Steel			
Temp. LED Control	Digital display microprocessor, increment 0.1°C with compressor delay start-up temperature offset for calibration mode, auto defrost high & low alarm			
Standard LED Alarm System	Hi/Low alarm (audio & visual)			
Castor (Heavy Duty)	6 nos.	6 nos.	6 nos.	6 nos.
Door Lock	2 nos.	3 nos.	4 nos.	2 nos.
Internal Air Circulation	Forced-air circulation			
Refrigerant	R407a CFC Free			
Lighting	2pcs	3pcs	4pcs	2pcs
Comp. Recip. Hermetic	3/4 HP	1.0HP	2 x 3/4 HP	3/4 HP
Power Voltage	220Vac 50Hz Single Phase (60Hz for others)			
Safety Features & Certification	ISO 13485, Electric Safety Test (EST) IEC 61010-1 (2010), GDPMD, ISO IEC 17025			

Stainless Steel Body Trolley & Autopsy Table

KC 004 Body Trolley
L2000mm x W810mm x H1300mm

HLT 003 Hydraulic Lift
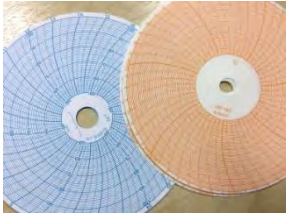L2400mm x W740mm x H990mm

KC 003 Autopsy Table
L2600mm x W750mm x H900mm
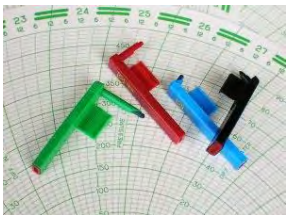
Accessories

Digital Thermometer & Data Logger

Model	Description
BT-3 Digital Thermometer & Hygrometer	**Function and features:** ❖ Display Indoor and outdoor temperature simultaneously ❖ Max./Min. temperature value memory ❖ Max./Min. temperature value recovery function ❖ Measuring range: Indoor temperature -30°C to +50°C / Outdoor temperature -50°C to +70°C ❖ Dimension: H110mm x L100mm
DS-1 Digital Thermometer	**Function and features:** ❖ Double sensors, internal and external ❖ Clock display ❖ Temperature measuring range: -50°C to +70°C ❖ Accuracy: ±1.0°C ❖ Dimension: L115mm x 30mm x 27.2mm
THL-2 Temperature & Humidity USB Data Logger	**Function and features:** ❖ Compatible with computers using Windows ❖ Instant and manual start ❖ Overall temperature range: -35°C to +70°C ❖ Dimension: L101mm x 25mm x 23mm ❖ Weight: 172g ❖ Logging rate: Selectable sampling interval from 2 seconds up to 24 hours
SSN-22 Portable USB Temperature Humidity Data Logger	**Function and features:** ❖ USB interface directly communicate with PC for setup and data download ❖ User can set access password for data logger ❖ Overall temperature range: -35°C to +80°C ❖ Humidity measurement range: 0 ~ 100% RH ❖ Dimension (mm): L123 x 37 x 23 / Weight: 90g
RC-4HC Mini Temperature & Humidity Data Logger	**Function and features:** ❖ Communication interface: USB interface ❖ Overall temperature range: -30°C to +60°C ❖ Humidity measuring range: 0 ~ 99% RH ❖ Dimension: L84mm x 44mm x 20mm / Weight: 35g ❖ Record interval: 10s ~ 24hour adjustable

Temperature Recorder & Accessories

Temperature Recorder	**Function and features:** ❖ Case dimension (mm): 144 x 144 ❖ Ambient temperature: -15°C to +60°C ❖ Highly reliable, precise and economic ❖ Absence of mercury – not hazardous ❖ Suitable for many uses in all industries ❖ Power supply: One (1) alkaline battery	**Chart Pen** **Chart Papers**

MEDILOX Disinfecting Solution

Medilox

High Level Disinfectant Solution. Sterilizing more than 99.9% of all germs and virus in 30 sec.

1Kg   4Kg

Medizyme is an effective, advanced medical enzyme detergent that digests protein, carbohydrate and lipid with combination of multi enzymes such as protease, amylase and lipase, etc. so that it impressivel removes biofilm.
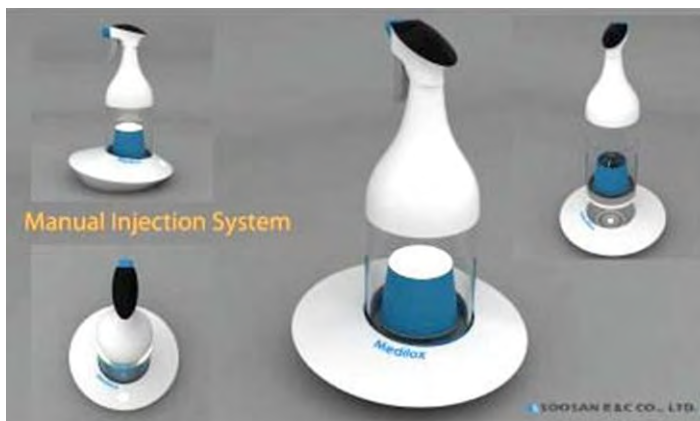
MS-4000P

Specifications	MS-4000P
Concentration	50 - 100ppm
pH	4.5 - 7.0
Redox potential	850 - 1000mv
Prodution capacity	240 liters/hr
Power source	110/ 240Vac single phase 50Hz
Power consumption	120 watt
Dimension	350mmW x 300mmL x 540mmH
Weight	24 kgs
Water requirement	Tap water, hardness: less than 80ppm
	pH 605 - 7.0
	Pressure more than 1.5kg/cm2
Agent	Annexol 4L x 4ea / box
Storage tank (option)	20L / 60L

Medilox
HypoActive

High Level Disinfectant Solution. Sterilizing more than 99.9% of all germs and virus in 30 sec.

Manual Injection System

Automatic Injection System

Sterilizing & Disinfecting Solution

Mini Ultra Violet (UV) Sterilizer

These mini sterilizers are useful for hospital, pharmacy, beauty shop, laboratory, clinic, pharmacy and places that need sanitation and sterilization.

They are good in design and small size. They are effective in disinfecting various kinds of germs on the surface of general items by using UV-ray (235.7nm wavelengths). It is very convenient to be used as keeping box for small implements.

Features:
- ✓ Easy to operate
- ✓ No special room preparation required, as the device can be placed at medical sites
- ✓ Set up quickly with the preset programs
- ✓ Disinfect high touch non-critical surfaces in minutes

KRS 989B

KRS-A1

KR 100

Maker	ETS		
Model	KRS 989B	KRS-A1	KR 100
Dim. Ext (mm) W x D x H	350 x 215 x 240	485 x 375 x 440	650 x 550 x 810
Dim. Int (mm) W x D x H	315 x 190 x 170	480 x 315 x 320	580 x 470 x 520
Internal Chamber	Stainless Steel		
Capacity	10L	48L	140L
Weight	2.95KG	11.75KG	30KG
UV Lamp	6W x 1 no.	10W x 1 no.	20W x 1 no.
Shelf	2 nos.	2 nos.	3 nos.
Power Supply	100V to 240 VAC 50Hz/60Hz		240VAC 50Hz
Power Consumption	8W	10W	350W
Temperature Control Range	No	No	Ambient +5°C to +60°C PID
Internal Air Circulation	No	No	Forced-air

Cold-chain Logistics Solution

A temperature-controlled supply chain solution – using uninterrupted series of refrigerated production, storage and distribution activities, along with associated equipment and logistics, which to maintain a desired low-temperature range. It is used to preserve and to extend the shelf life of products, e.g. bio-pharmaceutical supplies, chemicals, pharmaceutical drugs, specimens, agricultural produce, seafood, photographic films, etc.

Features:
- ✓ Transportation efficiency
- ✓ Lower operating costs
- ✓ Increase operation efficiency
- ✓ Improved safety
- ✓ Real-time inventory control
- ✓ Improve/Maintain quality of goods

| Manufacturer / Wholesaler | Truck | Warehouse storage | Shipment – Sea freight / Land Transport / Air freight / Railway transport | Distribution center | Truck | Hospital / Retailer / Individual |
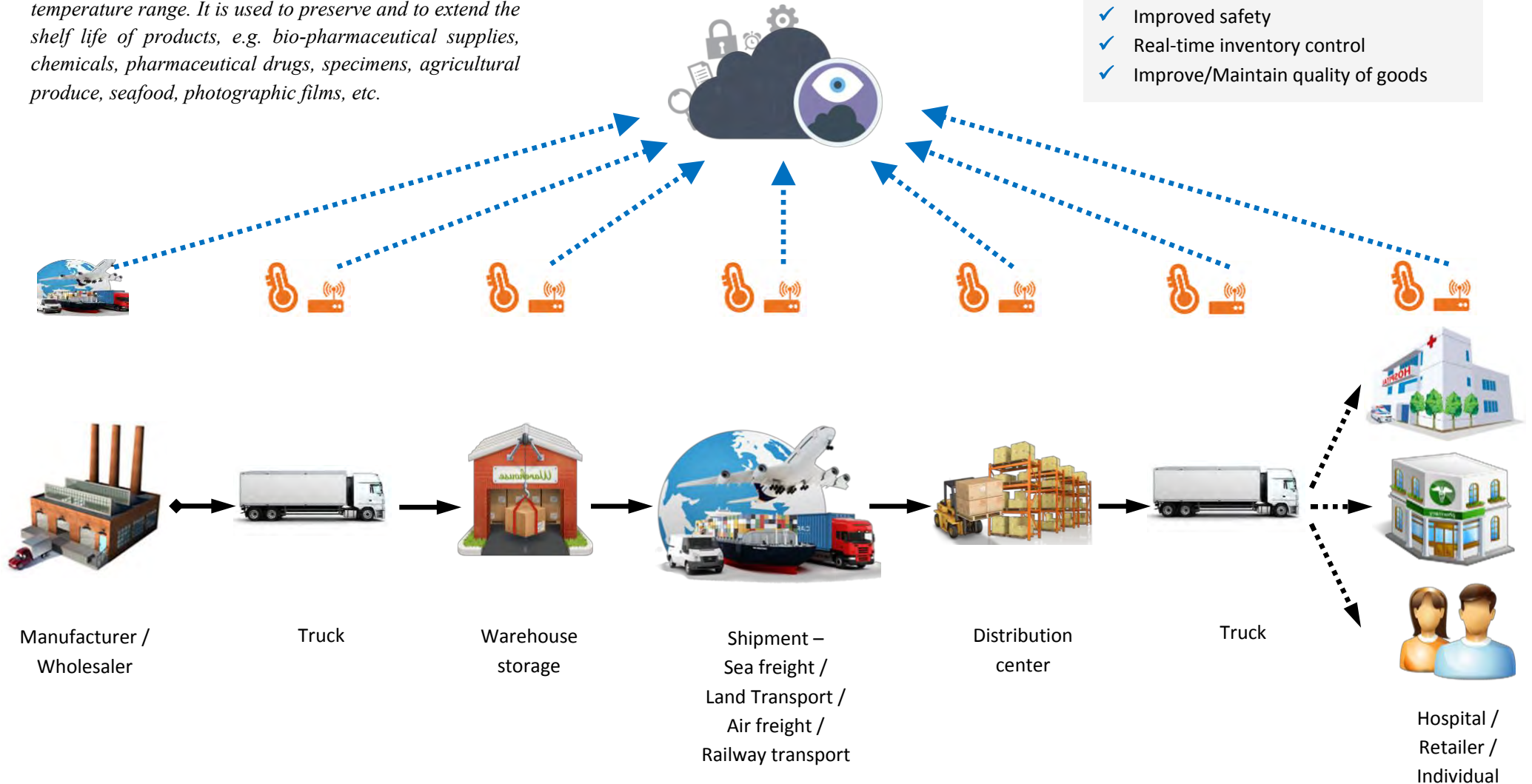
Low Temperature Freezer
-20°C to -40°C

Model	VF SL-120A
Dimensions (mm) W x D x H	1200 x 810 x 2000
Made of	Both interior and exterior – Stainless steel
Temperature	-20°C to -40°C
Freeze method	Air cooling
Insulated thickness	90mm
Freezer Unit	1.3kW
Interior shelf method	Net shelf / Trays on tracks

Model	VF SL-75A
Dimensions (mm) W x D x H	750 x 810 x 2000
Made of	Both interior and exterior – Stainless steel
Temperature	-20°C to -40°C
Freeze method	Air cooling
Insulated thickness	90mm
Freezer Unit	0.8kW
Interior shelf method	Net shelf / Trays on tracks

Model	VF SL-120G
Dimensions (mm) W x D x H	1200 x 810 x 2000
Made of	Both interior and exterior – Stainless steel
Temperature	-20°C to -40°C
Freeze method	Air cooling
Insulated thickness	90mm
Freezer Unit	1.3kW
Interior shelf method	Net shelf / Trays on tracks

Model	VF SL-75G
Dimensions (mm) W x D x H	750 x 810 x 2000
Made of	Both interior and exterior – Stainless steel
Temperature	-20°C to -40°C
Freeze method	Air cooling
Insulated thickness	90mm
Freezer Unit	0.8kW
Interior shelf method	Net shelf / Trays on tracks

Model	VF SL-68T
Dimensions (mm) W x D x H	680 x 750 x 800
Made of	Both interior and exterior – Stainless steel
Temperature	-20°C to -35°C
Freeze method	Air cooling
Insulated thickness	90mm
Freezer Unit	0.6kW
Interior shelf method	Net shelf

Model	VF UC-60
Dimensions (mm) W x D x H	680 x 750 x 800
Made of	Both interior and exterior – Stainless steel
Refrigerator Temperature	+2°C to +14°C
Freeze method	Air cooling
Freezer Unit	1.3kW
Interior shelf method	Net shelf / Trays on tracks

Model	VF SL-68G
Dimensions (mm) W x D x H	680 x 750 x 1100
Made of	Both interior and exterior – Stainless steel
Temperature	-20°C to -35°C
Freeze method	Air cooling
Insulated thickness	90mm
Freezer Unit	0.6kW
Interior shelf method	Net shelf

Model	VF UCF-185
Dimensions (mm) W x D x H	1500 x 600 x 800
Power Supply	220V 50Hz ~ 60Hz
Temperature	-20°C to -35°C
Capacity	268L
Net Weight	98KG
Compressor Output	350W
Refrigerant	R404a
Cooling System Type	Air-cooled
Shelf	2 nos.

DSM 9000 SMS Alarm System

(GSM Auto Dialer for
Temperature Alarm Alert
High & Low, Power Failure)

Laboratory Freezer &
Refrigerator Connection

Features Include:

- ❖ Able to send SMS message when power failure or high/low temperature alarm alert is triggered.
- ❖ Max. link-up 7 units freezer(s)/refrigerator(s)
- ❖ Use Sim card device
- ❖ With external Audio & Visual alarm
- ❖ Remote alarm contact
- ❖ DC backup battery last for 72-hour
- ❖ Able to send max. 8 telephone numbers via SMS

Freezer Data Logging &
Monitoring System v1.0

Centralized data collection
Data logging
Alert Management via email / SMS
Temperature Trending
Schedule Reporting

Freezer 1

Freezer 2

Freezer 3

Freezer 4

Remote View Station

NOTE: In the event slight difference occurs between pictures and actual products, please refer to the actual products. We reserve the rights of final interpretation to this catalog and please contact us for future information you might need.