



# Laboratory Refrigerators & Freezers

General Purpose Laboratory Refrigerators.  
Pharmacy Refrigerators.  
General Purpose Laboratory Freezers.

## Selection Guide

### Laboratory Refrigerators & Freezers

Description		Operating Temp. Range (°C/°F)	Chamber Volume (L /cu ft)	Door type	Shelve or Drawer	Page
General Purpose Laboratory Refrigerators	CLG-150	2 ~ 10 / 35.6 ~ 50	156 / 5.5	Glass or Solid	Shelve	82 - 84
	CLG-300		319 / 11.3			
	CLG-650		636 / 22.5			
	CLG-850		843 / 29.7			
	CLG-1400		1395 / 49.3			
Pharmacy Refrigerators	CLP-650	636 / 22.5	Drawer			
	CLP-850	843 / 29.7				
	CLP-1400	1395 / 49.3				
General Purpose Laboratory Freezer	FLG-150	-20 ~ -30 / -4 ~ -22	156 / 5.5	Solid	Shelve	
	FLG-300		319 / 11.3			
	FLG-650		636 / 22.5			

### Accessories & Options

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# General Applications

General applications	Laboratory Refrigerators & Freezers	
	CLG/CLP series	FLG series
BOD Protocols	•	
Chemical Storage	•	
Chromatography Apparatus and Instrumentation	•	
Clinical	•	•
Culture	•	
Enzymes		•
General Storage	•	•
Life science	•	
Medication	•	•
Pharmaceutical	•	
Pre-Freezing		•
Reagents	•	
Test Samples	•	•
Temperature Sensitive Materials		•
Vaccines	•	•

\*For general purpose use and storage applications.

## Technical Benefits

### Safety functions

- 1) Visual and audible alarms.
  - High / low temperature.
- 2) 2 individual over-current fuses for safety.
- 3) Door-open warning alarm :
  - During 2 minutes, visual alarm and after 2 minutes, intermittent audible alarm.
  - Fan automatically stops when the door is opened to minimize heat loss and protect operator.
  - Equipped with a lock and key.

### Optimum control performance

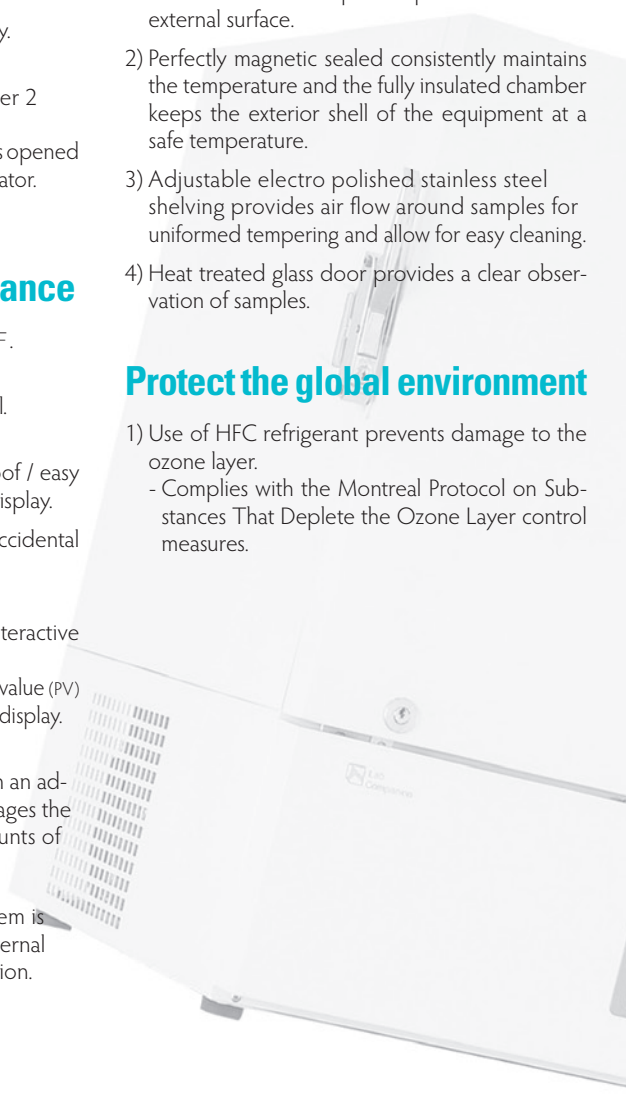
- 1) Temperature selection either in °C or °F.
- 2) CPU logic control system.
  - Economic power consumption control.
  - Optimum control of temperature.
- 3) User friendly controls with a splash proof / easy to clean keypad and with a clear VFD display.
- 4) Quick keypad lock button prevents accidental parameter changes.
- 5) Touch screen type monitor.
  - Colorful and bright VFD display with interactive touch keys.
  - Visible set values: set point (SP) / present value (PV) displayed together on the vibrant VFD display.
- 6) Optimizing defrost system.
  - Non-conventional defrost system, with an advanced defrost sensor (dual sensor) manages the defrost cycle by detecting trace amounts of frost build-up in the evaporator.  
(Only for CLG / CLP / FLG-150, 300, 650 series)
  - The unique dual sensor defrost system is initiated when needed, to maintain internal temperature uniformity during operation.  
(Only for CLG / CLP-850, 1400 series)

### Ideal construction

- 1) High quality #304 grade stainless steel inner chamber and dirt repellent powder coated external surface.
- 2) Perfectly magnetic sealed consistently maintains the temperature and the fully insulated chamber keeps the exterior shell of the equipment at a safe temperature.
- 3) Adjustable electro polished stainless steel shelving provides air flow around samples for uniformed tempering and allow for easy cleaning.
- 4) Heat treated glass door provides a clear observation of samples.

### Protect the global environment

- 1) Use of HFC refrigerant prevents damage to the ozone layer.
  - Complies with the Montreal Protocol on Substances That Deplete the Ozone Layer control measures.



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General Purpose Laboratory Refrigerators  
Pharmacy Refrigerators



General Purpose Laboratory Freezers

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With advanced safety features, the cold storage system provides a stable refrigerated environment for life science, pharmaceutical, biotechnology, clinical, and industrial laboratories.

### Constructional features

- Spacious and with different capacity sized refrigeration units to choose from.
  - General purpose laboratory and pharmacy refrigeration units come in volume capacities of 1395 liters.
  - General purpose laboratory freezer units come in volume capacities of 636 liters.
- High quality #304 grade stainless steel interior.
- Fluorescent lighting included with general purpose laboratory and pharmacy refrigeration units.
  - General Purpose Laboratory Refrigerators.  
(Excludes 150 Series)
  - Pharmacy Refrigerators.
- Heat treated glass door for sample observation. (Only glass types)
  - Double-pane glass door with built in wire heaters in only G type refrigeration units, to provide a clear observation of samples.
- Magnetic door seal.
  - Double cushioned packing provides impact absorption from opening and closing of refrigeration or freezer unit door.
  - The magnet in the double cushioned packing ensures a perfect seal around the chamber.
- Casters, comes standard with the laboratory refrigeration and freezer units and allows for easy transport and installation.  
(Excludes 150 Series)
- Cable port for external probes or wires.  
(Only CLG / CLP models excludes 150 Series)
  - 50mm diameter cable port comes standard on the left side of the unit.
  - Additional 50mm diameter cable ports can be custom ordered.  
(optional)
- 150 series stand and stacking kit optional. (up to 2 chambers high)
  - For use in labs with limited space.
- Efficient system with durable parts.
  - Evaporating system for better thermal efficiency with corrosion-resistant materials.
- Timer less Defrost system.
  - Advanced defrost sensor (dual sensor) manages the defrost cycle by detecting trace amounts of frost build-up in the evaporator.  
(Only for CLG/CLP/FLG-150,300,650 series)
  - Unique dual system defroster only runs when needed therefore internal temperature uniformity is maintained.  
(Only for CLG/CLP-850, 1400 series)

### Operating features

- CPU logic control system.
  - Optimum control of temperature with economical power consumption.
- Enhanced digital controller, designed to simplify operation with a touch of a screen and with used of knob.
- Touch screen type display.
  - Colorful and bright VFD display with interactive touch keys.
  - Quick keypad lock button prevents accidental parameter changes.
  - Visible set values : set point (SP) / present value (PV) displayed together on the vibrant VFD display.
  - Setting and resolution indication :
    - Temperature: 0.1°C / °F.
    - Signal indication for operation status.
- Convenient and easy to maintain-warning alarm / monitoring system, and door lock system, etc.
- Recorder. (optional)
  - 6-point dot type recorder with a digital display.
  - Temperature recorder, 6 inches (152 mm) chart, 7-days drive.
  - Thermal Line type recorder.

### Safety functions

- Over current protection.
- Warning alarm with visual indicators and audible alarms.
  - Door open alarm.
  - High / low temperature alarm.
- Vice lock door closing mechanism.



# Laboratory Refrigerators & Freezers

## Laboratory Refrigerators & Freezers

### General Purpose Laboratory Refrigerators



Model		CLG-150	CLG-300	CLG-650	CLG-850	CLG-1400
Chamber volume (L / cu ft)		156 / 5.5	319 / 11.3	636 / 22.5	843 / 29.7	1395 / 49.3
Display		VFD and touch-screen				
Temperature range (°C / °F)		2 ~ 10 / 35.6 ~ 50				
Refrigerator (Hp)		1/8	1/6	1/3	1/6×2ea	1/4×2ea
Door type		Heated glass or Solid				
Lighting		-	18W Fluorescent lamp	32W Fluorescent lamp		
Material	Interior	Stainless steel #304				
	Exterior	Steel, 1.0 mm, powder coating				
	Insulation	60mm, Polyurethane foam				
Dimensions (W×D×H)	Interior (mm / inch)	550×580×490 / 21.7×22.8×19.3	550×580×1000 / 21.7×22.8×39.4	650×675×1450 / 25.6×26.6×57.1	750×775×1450 / 29.5×30.5×57.1	1425×675×1450 / 56.1×26.6×57.1
	Exterior (mm / inch)	683×791×870 / 26.9×31.1×34.4	670×719×1515 / 26.4×28.3×59.6	770×815×1965 / 30.3×32.1×77.4	870×915×1965 / 34.3×36×77.4	1545×815×1965 / 60.8×32.1×77.4
	Net weight (kg / lbs)	100 / 220.4	130 / 286.6	210 / 463.0	260 / 573.2	350 / 771.6
Electrical Requirements (120V, 60Hz)		4.0 A	4.5 A	6.5 A	9.0 A	13.0 A
Cat. No.	Solid door type	AAHE1003U	AAHE1013U	AAHE1023U	AAHE1033U	AAHE1043U
	Glass door type	AAHE1103U	AAHE1113U	AAHE1123U	AAHE1133U	AAHE1143U
Electrical Requirements (230V, 60Hz)		2.0 A	2.3 A	4.0 A	5.0 A	6.0 A
Cat. No.	Solid door type	AAAE1001	AAAE1011	AAAE1021	AAAE1031	AAAE1041
	Glass door type	AAAE1101	AAAE1111	AAAE1121	AAAE1131	AAAE1141
Electrical Requirements (230V, 50Hz)		2.0 A	2.3 A	4.0 A	5.0 A	6.0 A
Cat. No.	Solid door type	AAHE1002	AAHE1012	AAHE1022	AAAE1032	AAHE1042
	Glass door type	AAHE1102	AAHE1112	AAHE1122	AAHE1132	AAHE1142

### Pharmacy Refrigerators



Model		CLP-650	CLP-850	CLP-1400
Chamber volume (L / cu ft)		636 / 22.5	843 / 29.7	1395 / 49.3
Display		VFD and touch-screen		
Temperature range (°C / °F)		2 ~ 10 / 35.6 ~ 50		
Refrigerator (Hp)		1 / 3	1 / 6×2ea	1 / 4×2ea
Door type		Heated glass or Solid		
Lighting		32W Fluorescent lamp		
Material	Interior	Stainless steel #304		
	Exterior	Steel, 1.0 mm, powder coating		
	Insulation	60mm, Polyurethane foam		
Dimensions (WxDxH)	Interior (mm / inch)	650×675×1450 / 25.6×26.6×57.1	750×775×1450 / 29.5×30.5×57.1	1425×675×1450 / 56.1×26.6×57.1
	Exterior (mm / inch)	770×815×1965 / 30.3×32.1×77.4	870×915×1965 / 34.3×36×77.4	1545×815×1965 / 60.8×32.1×77.4
	Net weight (kg / lbs)	210 / 463.0	260 / 573.2	350 / 771.6
Electrical Requirements (230V, 60Hz)		4.0 A	5.0 A	6.0 A
Cat. No.	Solid door type	AAHE3021	AAHE3031	AAHE3041
	Glass door type	AAHE3121	AAHE3131	AAHE3141
Electrical Requirements (230V, 50Hz)		4.0 A	5.0 A	6.0 A
Cat. No.	Solid door type	AAHE3022	AAHE3032	AAHE3042
	Glass door type	AAHE3122	AAHE3132	AAHE3142

※ Other size of chamber also available. (156L,300L)

### General Purpose Laboratory Freezers



Model		FLG-150	FLG-300	FLG-650
Chamber volume (L / cu ft)		156 / 5.5	319 / 11.3	636 / 22.5
Display		VFD and touch-screen		
Temperature range (°C / °F)		-20 ~ -30 / -4 ~ -22		
Refrigerator (Hp)		1 / 2	3 / 4	1
Door type		Solid		
Material	Interior	Stainless steel #304		
	Exterior	Steel, 1.0 mm, powder coating		
	Insulation	60mm, Polyurethane foam		
Dimensions (WxDxH)	Interior (mm / inch)	550×580×490 / 21.7×22.8×19.3	550×580×1000 / 21.7×22.8×39.4	650×675×1450 / 25.6×26.6×57.1
	Exterior (mm / inch)	683×791×885 / 26.9×31.1×34.8	670×719×1530 / 26.4×28.3×60.2	770×815×1980 / 30.3×32.1×78
	Net weight (kg / lbs)	100 / 220.4	130 / 286.6	210 / 463.0
Electrical Requirements (230V, 60Hz)		3.5 A	4.0 A	4.3 A
Cat. No.	Solid door type	AAHE2001	AAHE2011	AAHE2021
	Glass door type	AAHE2101	AAHE2111	AAHE2121
Electrical Requirements (230V, 50Hz)		3.5 A	4.0 A	4.3 A
Cat. No.	Solid door type	AAHE2002	AAHE2012	AAHE2022
	Glass door type	AAHE2102	AAHE2112	AAHE2122

※ Permissible ambient Condition: Temperature 18 to 35°C (64.4 to 86°F), Maximum relative humidity 85%.

※ Technical data. (according to DIN 12880)

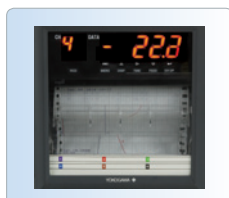


# Laboratory Refrigerators & Freezers

## Accessories & Options

for CLG / CLP / FLG

### Recorders



Dot type recorder



Chart type recorder

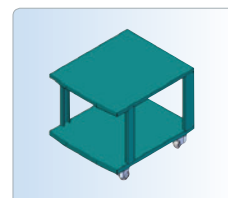


Thermal line type recorder

### Others

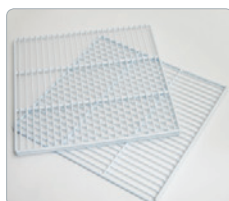


Electrical outlet (CLG)



Stand with casters (Only CLG-150/FLG-150)

### Shelves



Wire Shelves



Wire Shelves (Slide type)



Drawer (Slide type)

### Include and Maximum Shelf Quantity

Products	Wire Shelves		Wire Shelves (Slide type)		Drawer (Slide type)	
	Include	Maximum	Include	Maximum	Include	Maximum
CLG-150	2	6	-	4	-	3
CLG-300	3	11	-	7	-	5
CLG-650	3	17	-	11	-	8
CLG-850	3	17	-	11	-	8
CLG-1400	6	34	-	22	-	16
CLP-650	-	17	-	11	6	8
CLP-850	-	17	-	11	6	8
CLP-1400	-	34	-	22	12	16
FLG-150	2	6	-	4	-	3
FLG-300	3	11	-	7	-	5
FLG-650	3	17	-	11	-	8

### Shelves, Drawers, Recorders, others

Cat. No.		Description
Shelves	AAAE1511	Wire Shelves for CLG / FLG-150 / 300 (Flat type, Included Shelf Bracket)
	AAAE1512	Wire Shelves for CLG / CLP / FLG-650, CLG / CLP-1400 (Flat type, Included Shelf Bracket)
	AAAE1513	Wire Shelves for CLG / CLP-850 (Flat type, Included Shelf Bracket)
	AAAE1514	Wire Shelves for CLG / FLG-150 / 300 (Slide type, Included Guide Rail)
	AAAE1515	Wire Shelves for CLG / CLP / FLG-650, CLG / CLP-1400 (Slide type, Included Guide Rail)
	AAAE1516	Wire Shelves for CLG / CLP-850 (Slide type, Included Guide Rail)
Drawers	AAAE1517	Drawer Shelves for CLG / FLG-150/300 (Slide type, Included Guide Rail)
	AAAE1518	Drawer Shelves for CLG / CLP / FLG-650, CLG / CLP-1400 (Slide type, Included Guide Rail)
	AAAE1519	Drawer Shelves for CLG / CLP-850 (Slide type, Included Guide Rail)
Recorders	AAA8T500	Recorder (6 Point)
	AAAE1501	Recorder (Chart type, 6", 24hr / 7day)
	AAAE1502	Chart Recorder Paper (6", 60 Package)
	AAAE1503	Recorder (Thermal Line chart recorder)
Others	AAAE1521	Cable Port for CLG / CLP series (50mm) - without 150 models
	AAAE1532	Electrical Outlet for CLG / CLP series with 230V Outlet (Korea style) - without 150 models