

Water Circulator (Chiller)

Powerful closed circulation system with excellent cooling capacity

CF302L-A CF312L-A / CF800-115V CF800-220V

Operating temp. range -20°C~30°C (CF302LA/CF312LA) -20°C~RT (CF800)

Capacity ~3.9L (Liquid vol. 3.5L) (CF302LA/CF312LA) ~16L (Liquid vol. 14L) (CF800)

CF302L-A
CF312L-A



CF800-115V
CF800-220V

Common to all models

- Environment friendly coolant used for refrigeration
- Compact and space-saving to fit on laboratory tables and limited space
- **CF302L-A / CF312L-A**
- User-friendly controller
- Easy maintenance of air intake filter
- Rotatable connector which can freely be moved and be set in the desired orientation
- Convenient drainage of waste water
- Environment friendly coolant used for refrigeration
- Features calibration offset function which compensates discrepancy between actual liquid temperature and display temperature
- Auto resume function allows user to select whether to resume operation or to remain at standby at the time of recovery from power failures
- **CF800-115V / CF800-220V**
- Waterproof touch panel with big LED display and sheet key for easier setting
- Less energy use and less cooling capacity loss by fixing the heat-resistant lid
- Powerful cooling and big energy saver in combination with rotary evaporator distillation
- Up to 4 rotary evaporators can be connected saving investment and operation cost

Specifications

Model	CF302LA-115V CF302LA-220V	CF800-115V CF800-220V
System/circulating water	Closed circulation/tap water, anti-freeze solution (below 10°C)	
Operating ambient temperature	5 to 35°C	
Temp. setting range	-20°C ~ 30°C (no heating function) ¹⁾	-20°C ~ Room temperature
Temperature control accuracy (JTM K05) ²⁾	±1.0 °C (≥ 0°C) ±1.5 °C (≥ 0°C)	±1.5°C at 10°C
Temperature fluctuation (JIS) ²⁾	3.0 °C (≥ 0°C) 4.0 °C (≥ 0°C)	-
Cooling capacity (liquid temp) ²⁾	~420W at liquid temp. 10°C ~280W at liquid temp. -10°C	~1050W (830Kcal/h) at Liquid Temp. 10°C ~910W (780Kcal/h) at Liquid Temp. 0°C ~670W (570Kcal/h) at Liquid Temp. -10°C
Max. flow rate ³⁾	~ 10L/min.	50Hz: ~16.9L/min 60Hz: ~19.6L/min
Max. head ³⁾	~ 5.7m	10.3m / 14.3m
Temperature control system	Refrigeration ON-OFF	
Temperature sensor	Pt100Ω	T-Thermocouple (with SUS Protection Tube)
Controller	White LED digital display, key entry, minimum digit of 1°C	Digital setting / LED display
Refrigeration system/rated performance	Air cooling/450W	Air cooling, 600W
Refrigerant	R404A	
Cooling Coil	Copper/Nickel plating	
External circulation connection port	One touch connector (swivel type, L type) / Flow rate valve (optional)	Outer diameter: 10.5mm (both discharge and return) with hose nipple
Circulation pump	15W 20W	Magnet pump 65W 65W
Safety device	Overcurrent ELCB, temp. sensor failure, temp. upper/lower limit alert, temp. upper/lower limit error, refrigerator high pressure cut off switch fan motor protection, circulation pump protection, delay timer for refrigerator protection	Electric leakage breaker, refrigerator over load relay, pump thermal protector, refrigerator-protection delay timer
Other functions	Drain hose, condensate drain hose, Intake dust filter, cooling operation key, circulating pump key, calibration offset, Auto resume function	Overflow, Drainage cook Service power outlet (Aspirator unit power supply use)
Water bath material	Stainless steel	
Water bath capacity	~3.9L (Liquid volume 3.5L)	~16L (Liquid Amount 14L)
Power source	AC115V 7.5A with plug AC220V 4A no plug, round terminal	AC115V 13.5A with plug AC220V 7A no plug, round terminal
External dimension (WxDxH) mm (including protrusions)	205 x 396 x 535 (225 x 434 x 564)	355 x 480 x 1060
Weight	~31kg	~80kg
Included accessories	Condensate drain hose(1m)(1), Hose clamp (2), Hose nozzle (for flexible hose connection)(2)	Top cover, 0.5m long drain hose, 3m long circulation hose, wire clampx2

¹⁾ Unit does not feature heating function. Depending on ambient temperature or connection conditions, temperature may not reach -20°C. ²⁾ Performance based on 115V/220V supplied power and 20°C ambient temp. Temp. control accuracy and temp fluctuation are standards calculated accdgd. to JTM K05 and JIS respectively. ³⁾ Pump performance based on tap water at 20°C (CF302/312) and 23°C (CF800).

Features of CF302L-A / CF312L-A

Control Panel



Discharge port, Return port (top view)



Drain plug (right side)



Features of CF800

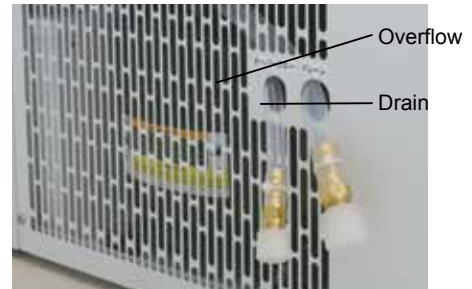
Control Panel



External Circulation Nozzle (back view)



Drain, Overflow (left side)



Installation of one touch rotation L-shaped nozzle



Optional items

CF302L-A/312L-A

Product code	Product name	Standard
LT00039314	One touch connector (L-type)	R3/8
LT00039316	Hose nozzle	10 mm OD connectors for flexible hose with 9 mm I.D.
CF30243000	Intake dust filter	Front air intake
CF30241060	Drain plug	For 12mm ID hose
LT00007489	Silicon hose	φ12 × φ16 mm 1.0 m Condensate drain hose (included)
LT00036771	Strainer	20 mesh
LT00039454	Inner collar	Applicable hose: φ6.5 × φ10 mm

CF802

Product code	Product name	Specifications
221581	Circulation insulation hose	ø9 2m×2pcs
221596	Straight circulation nozzle	ø8 Rc3/8
221394		ø10.5 Rc3/8
221399		ø13 Rc3/8
221395		ø16 Rc/8
221681	One touch fixing holder	ø10.5 Straight 2pcs/set
221682		ø13.7 Straight 2pcs/set
221683		ø10.5 L shape 2pcs/set
221684		ø13.7 L shape 2pcs/set
281440	Cast fixing holder	4pcs/set