

## Water Circulator (Chiller) & Cold Trap

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# Water Circulator (Chiller)

Powerful closed cooling system

## CF Series

Operating temp. range

-20°C~Room temp.

Capacity

4L  
CF301/311

16L  
CF800/811

### Closed system and water saving with excellent cooling capacity

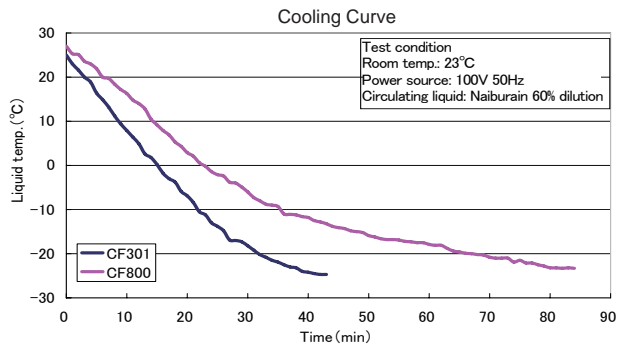


- Environment friendly coolant used for refrigeration
- Waterproof touch panel with big LED display and sheet key for easier setting
- Less energy use and less cooling capacity loss by fixing the heat-resistant lid
- Powerful cooling and big energy saver in combination with Rotary Evaporator distillation
- When using CF800/810 up to 4 Rotary Evaporators can be connected saving investment and operation cost

### Specifications

Model	CF301	CF311	CF800	CF810
Circulation type	Closed circulation			
Operational ambient temperature	5 to 35°C			
Operating temp. range	-20°C ~ Room temperature			
Cooling capacity	~450W (385Kcal/h) at liquid temp. 10°C ~360W (380Kcal/h) at liquid temp. 0°C ~270W (230Kcal/h) 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	
Temp. control	Refrigerator on/off control			
Temp. sensor	T-Thermocouple (with SUS Protection Tube)			
Temp. setting / Display	Digital setting / LED display			
Refrigerator	Air cooling, 450W		Air cooling, 600W	
Coolant	R404A			
Circulation pump	Magnet pump 10/15W		Magnet pump 65/65W	
Circulation capacity (50/60Hz)	Max. flow rate	6.3/7.2L/min	10.0/11.8L/min	
	Pump max. flow rate	12.8/14.3L/min	22.0/22.0L/min	
	Max. lift	4.0/5.6m	10.3/14.3m	
	Pump max. lift	4.1/5.7m	10.0/13.5m	
Cooling Coil	Nickel plated copper			
External circulation nozzle	O.D. 10.5mm for in and out with hose nipple			
Safety device	Electric leakage breaker, refrigerator over load relay, pump thermal protector, refrigerator-protection delay timer			
Other functions	Drain, over flow			
Water bath dimension	ø151x177mm		ø300 x H235mm	
Water bath material	SUS304			
Water bath capacity	~4L (Liquid amount 3L)		~16L (Liquid amount 14L)	
Power source (50/60Hz)	AC115V 5.6A	AC220V 3A	AC115V 12.5A	AC220V 7A
External dimension (W x D x H mm)	228 x 508 x 790	228 x 612 x 790	350 x 480 x 1240	350 x 480 x 1240
Weight	~50kg	~50kg	~72kg	~72kg
Accessories	Circulation hose (1.5m) x2, Wire clamp x2, cover			

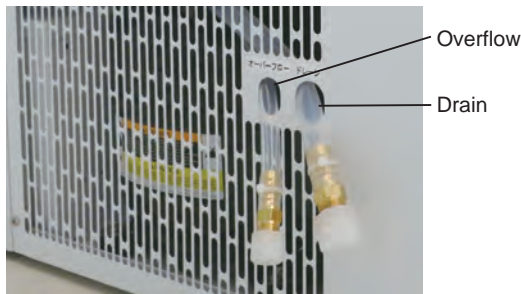
## Cooling Curve



## Control Panel



## Drain, Overflow (Left Side)



## External Circulation Nozzle (CF800 at the back)



## Optional items



Circulation insulation hose



Straight circulation nozzle



One touch rotation L-shaped nozzle

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 Rc3/8
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



Installation of one touch rotation L shape nozzle

# Cold Trap

## CA301/801

Maximum low temperature

-45°C (CA301)

-85°C (CA801)

Dehumidifying capacity

0.9kg(Water type liquid) (CA301)

1.0kg(Water type liquid) (CA801)



**Efficiently traps water vapor and toxic substances discharged from vacuum oven and rotary evaporator to protect the vacuum pump**

- Excellent choice to extract acid and organic solvents with the optional glass condenser
- Efficiently reduces vapor inhalation amount to the vacuum pump
- Can be used as a low temperature tank as well as pre-cooling tank
- Utilizes R404A (CA301) and R600a and mixed coolants (CA801)
- Space saving and highly mobile on wheels

### Specifications

Model	CA301	CA801
Method	Direct trap or Glass trap (optional)	
Dehumidifying capacity	Max. 0.9kg(Water type liquid)	Max. 1.0kg(Water type liquid)
Max. low temperature	-45°C	-85°C
Refrigerator	Air cooling, 400W	Air cooling, 350W x 2
Refrigerant	R404A	R600a, Mixed coolant
Cooling coil	ID ø90mm SUS304	Installed at tank periphery
Lid	OD ø17.6mm with nozzle, SUS304	
Bath shape / material	Cylindrical / SUS304	
Ambient temp. range	5~35°C	5~30°C
Temperature display	7 segment LED	
Temperature sensor	Platinum resistance temperature detector Pt100Ω	
Defrosting mechanism	N/A	Hot gas bypass
Safety device	Electric leakage breaker with over current protection, refrigeration overload relay	Electric leakage breaker with over current protection, refrigeration overload relay, refrigerator delay timer, refrigerator high voltage error, sensor disconnection error
Sink dimensions	I.D.153 x H235mm	
Internal capacity	~4L (Liquid 3L)	
Power source	AC115V, 50/60Hz, 5A	AC115V, 50/60Hz, 8.5A AC220V, 50/60Hz, 4.5A
External dimension(mm)	W345xD475xH726	
Weight	~47kg	
Accessories	Casters fixing holder x 4	

### Optional items

Product description	Product code
Glass condenser set OCA10	221487
Reducer for rubber tube	
brass ø30xø18	242185
brass ø30xø12	242186
SUS ø30xø18	221496
SUS ø30xø12	241497
SUS lid	281296
Caster fixing holder x 4	281440



Glass condenser set

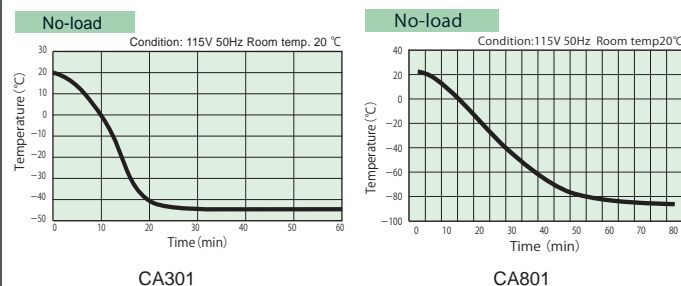


Glass condenser



Stainless cover

### Cooling Curve



### Application Examples

#### Combination with vacuum oven



DP63C+CA801+Vacuum pump

#### Combination with rotary evaporator



CF301+RE601+CA301+Vacuum pump

# NOTES

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