



**External sealed system cooling water circulator with a built-in solvent collection device that can be installed under a draft chamber or a sink and is compatible with Labo Cube.**



CF321P has a solvent collection device that has an external link mechanism to stop the circulation pump through the connection to the Teflon diaphragm vacuum pump and an external device.

Operating Temp. Range
-20 deg.C to room temp.
Cooling capacity
400W (at liquid temp.: 10 deg.C)

- Employs non-Freon refrigerant R404A that conforms to the regulations on specific Freon.
- Settings and display is made digitally on the operation part, which also has a timer function.
- CF321P has an external link function that reminds the user to turn off the circulator when operation finishes by linking to an external device. You can also use the vacuum pump stop delay timer function of the rotary evaporator RE601/801 by connecting to it.
- The circulation water flow adjusting cock, the discharge cock, and an overflow discharge port, an over current electric leakage breakers are located on the front of the unit and thus enable easy operation.

## ■ Specifications

<b>Product code</b>		<b>221563</b>
<b>Model</b>		<b>CF321P</b>
System		External sealed circulation
<b>Performance*1</b>		
Operating temp. range		-20 deg.C to room temp.
Temp. adjustment accuracy		+/-1.5°C (JTM K05/JIS ) at 10deg.C
Cooling capacity		Approx. 400W (344 Kcal/h) at liquid temp: 10 deg.C Approx. 350W (300 Kcal/h) at liquid temp: 0 deg.C Approx. 285W (245 Kcal/h) at liquid temp: -10 deg.C
<b>Circulation device configuration</b>		
Temperature control		Refrigerator ON-OFF control
Temperature sensor		T-thermocouple (with SUS protective tube)
Temp and time setting		Digital setting and LED display
Refrigerator/refrigerant		Air-cooled 350W / R404A
Circulation pump		With a magnet pump 34/45W
Unit circulation performance	Max. flow (50/60 Hz)	9.1/8.9 L/min
	Max. lift (50/60 Hz)	4.8/5.5m
Cooling coil		Copper nickel plating
Leg		Caster wheels
<b>Collection device configuration</b>		
External circulation nozzle		O.D. 10.5 mm (SUS) I/O one system, with a discharge side stop valve
Operating environmental temp. range		5 to 35 deg.C
Solvent collection cooling pipe		Dia.8 Surface area: 530 cm <sup>2</sup>
Solvent collection nozzle		O.D. 8 mm (SUS) Each of I/O x 1
Solvent collecting bottle		500 mL glass bottle x 1
Connection to vacuum pump		A Teflon diaphragm vacuum pump PG201 with displacement of 20 L/min can be connected to the inside of the main unit, with a dedicated service outlet.
<b>Function</b>		
External link function	External link terminal (no-voltage type): Circulation pump of the circulator is OFF and vacuum pump is OFF when the contact is closed.	
	RE signal connector: Vacuum pump delayed stop circuit with linked operation of RE601/801 (vacuum pump delay timer communication line is optional)	
Other functions	Drain, over flow	
Safety functions	Over current electrical leakage breaker, refrigerator over load relay, pump thermal protector delay timer for protecting refrigerator, H bypass for protecting pump	
<b>Standards</b>		
Water tank	Stainless steel, rectangle type, Approx. 4L (liquid amount: 3L) With over flow	
Power source	AC100V 6/5A (7.5/6.5A with Vacuum pump) 50/60Hz	
External dimensions*2	500 x 400 x 600 mm (W/D/H)	
Weight	Approx. 52 kg (excluding vacuum pump)	
<b>Accessory</b>		
Accessories	Drain hose, lid, solvent collect bottle, overflow hose, circulation hose 1.5m x 2pcs, wire clamp 2pcs, cable for RE	

\*1 Conditions: temperature and humidity: 23 deg.C+/-5 deg.C, 65%RH+/-20% (no load)

\*2 External dimensions do not include protrusions.

■ Installation example



■ Control panel



■ Circulation heat insulation hose (optional)



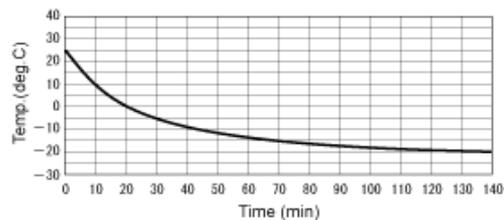
■ Vacuum hose (optional)



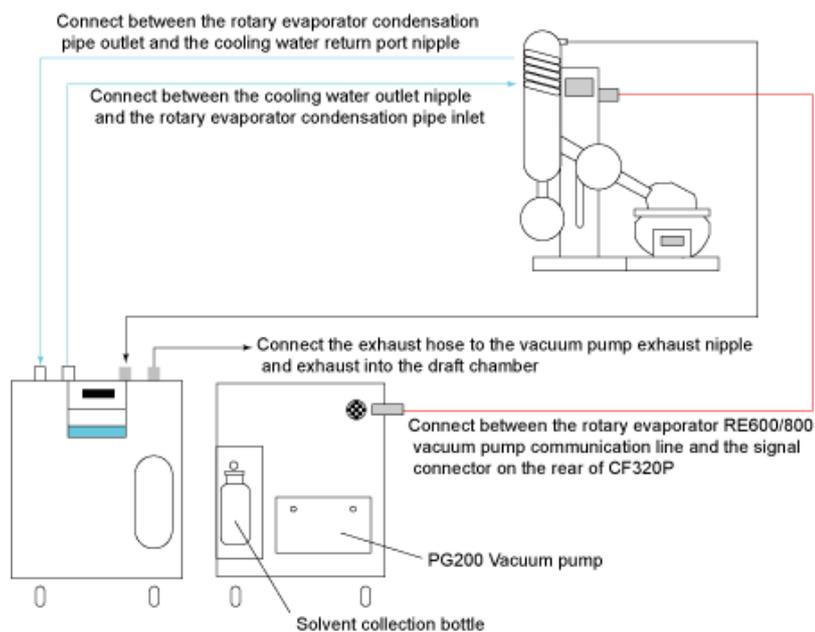
■ Solvent collection bottle



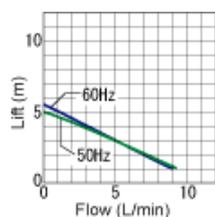
■ Cooling curve CF321P



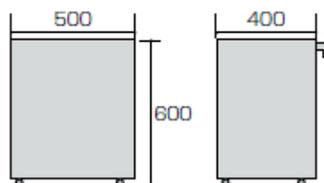
■ Example system configuration (connection example between CF321P and RE601/801)



■ Flow/lift curve CF321P



■ Dimensional drawing (mm)



■ Optional items

Description	Model No.	Product Code
Vacuum pump delay timer communication line	CF321P	281522
Vacuum pump PG201	CF321P	255158
Circulation heat insulation hose 9mm dia., 2m	CF321P	221581
Vacuum hose 6mm dia., 5m	CF321P	255297
Straight circulation nozzle 10.5mm dia Rc3/8	CF321P	221394
Straight circulation nozzle 16.0mm dia Rc3/8	CF321P	221395
L shape circulation nozzle 10.5mm dia Rc3/8	CF321P	221396
L shape circulation nozzle 13.0mm dia Rc3/8	CF321P	221397
L shape circulation nozzle 16.0mm dia Rc3/8	CF321P	221398