

CF320S/320P have been discontinued



CF320S / CF320P

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.



CF320S has a built-in solvent collection device while CF320P 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
450W (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.
- CF320P 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 RE600/800 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

Product code	221551	221553
Model	CF320S	CF320P
System	External sealed circulation	
Performance*1		
Operating temp. range	-20 deg.C to room temp.	
Temp. adjustment accuracy	+/-2 deg.C	
Cooling capacity	Approx. 450W (385 Kcal/h) at liquid temp: 10 deg.C Approx. 350W (300 Kcal/h) at liquid temp: 0 deg.C Approx. 260W (220 Kcal/h) at liquid temp: -10 deg.C	
Circulation device configuration		
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 and an H bypass	
Pump performance	Max. flow (50/60 Hz)	15 L/min
	Max. lift (50/60 Hz)	5.5/7.0m
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	
Collection device configuration		
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 ²	
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 PG200 with displacement of 20 L/min can be connected to the inside of the main unit, with a dedicated service outlet.
Function		
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 RE600/800 (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	
Standards		
Water tank	Stainless steel, rectangle type, Approx. 4L (liquid amount: 3L) With over flow	
Power source	AC100V, 10A (service outlet 5A) 50/60 Hz	
External dimensions*2	400 x 400 x 600 mm (W/D/H)	
Weight	Approx. 40 kg (excluding vacuum pump)	
Accessory		
Accessories	Top cover, drain hose, operation manual, warranty card	

*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



[CF320S]



[CF320P]

■ Circulation heat insulation hose (optional)



■ Vacuum hose (optional)



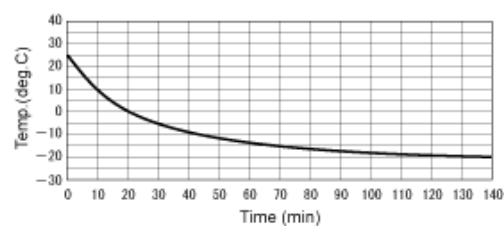
■ Vacuum pump PG200 (includes CF320P as standard)



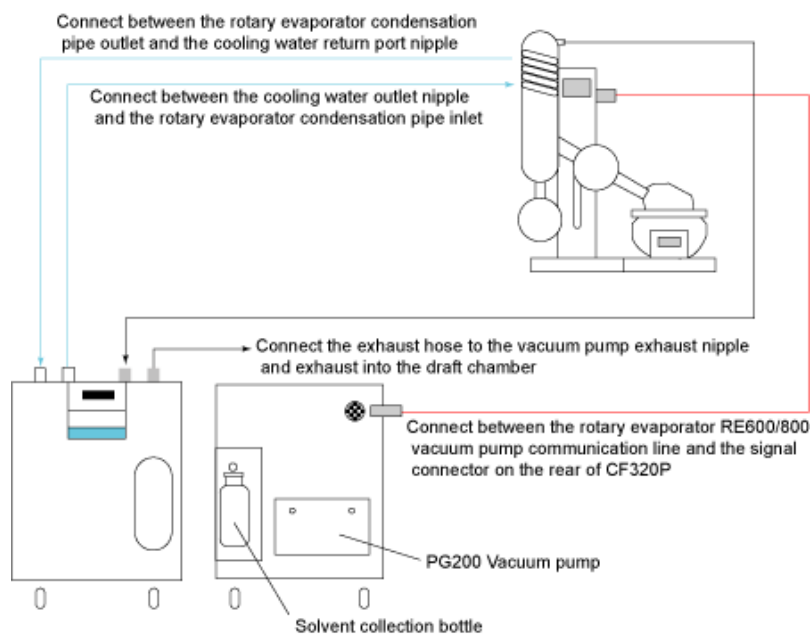
■ Solvent collection bottle



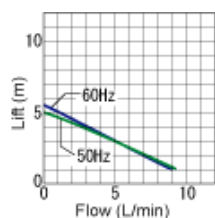
■ Cooling curve CF320S/320P



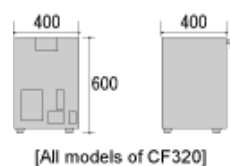
■ Example system configuration (connection example between CF320P and RE600/800)



■ Flow/lift curve CF320S/320P



■ Dimensional drawing (mm)



■ Optional items

Description	Model No.	Product Code
Vacuum pump delay timer communication line	CF320S/320P	281522
Vacuum pump PG200	CF320S/320P	255287
Circulation heatinsulation hose dia.9, 2m	CF320S/320P	221581
Vacuum hose dia.6, 5m	CF320S/320P	255297

■ Configuration of CF320P

Item name
CF320P main body
Diaphragm vacuum pump PG200