

Labo Cube External Closed Circulation Cooling Water Circulator, Low-floor Inverter Type
CFE820/920



CFE820/920

Labo Cube External Closed Circulation Cooling Water Circulator, Low-floor Inverter Type



High power capacity and can be installed under the fume hood or sink.

Model: CFE920 is 2 way circulation type, which enables to perform the cooling operation with 2 rotary evaporator at the same time.

Model	
CFE820	CFE920
Operating Temp. Range	
-20 deg.C to 20 deg.C	
Cooling capacity	
Approx. 1100W at liquid temp 0 deg.C	

- High power and lower power consumption type with inverter. (Up to 35%. Compared with our previous model)
- Suitable for synthesis tests using rotary evaporators or for cooling external equipment that suddenly changes temperature.
- Especially at low temperature range (0 to 20 deg.C) to demonstrate its power.
- Circulation flow control cock and Drain pan for overflow are equipped as standard.

■ Specifications

Model	CFE820	CFE920
Performance		
Circulation Type	Closed System Circulation By Pump	
Operating Temperature Range	-20 deg.C to 20 deg.C	
Temp. adjustment accuracy JTM K05/ Temp. fluctuation JIS (Load)	±0.5 deg.C (JTM K05) at -20 deg.C / ±0.8 deg.C (JIS) at -20 deg.C	
Cooling Capacity	Approx. 1,100W at Liquid temp. 0 deg.C Approx. 730W (559kcal/h) at Liquid temp. -10 deg.C Approx. 270W (215kcal/h) at Liquid temp. -20 deg.C	
Components		
External circulation capacity pump max flow	8.2/9.5L/min (50/60Hz)	12/14L/min (50/60Hz) (2 total system)
External circulation capacity pump head	9.5/13m (50/60Hz)	
External circulation system number	1 system	2 system
External circulation nozzle	Nozzle is option (Rc3/8 with stop valves)	
Tank	SUS304	
Temp. control	Refrigerator inverter frequency control, Refrigerator ON/OFF operation (depends on the conditions, 3 minutes)	
Sensor	T thermocouple	
Temp. setting / display	Digital setting/display	
Refrigerator	Air cooling sealed rotary type 700W	
Coolant	R407C	
Cooling coil	Copper-nickel coated	
Circulation pump	Magnet pump 125W	
Ambient temperature range (during operation)	5 deg.C to 35 deg.C	
Safety Device		
Safety Countermeasures	Over current electrical leakage breaker, Refrigerator over load relay, Overheating (30 deg.C or more), Refrigerator high pressure relay, Pump thermal protector, Delay timer for protecting refrigerator, H bypass for protecting pump, Inverter overload protecting circuit	
Other Functions	Drain cock, Dust prevention filter, Water level gauge, Drain pan for overflow/circulation nozzle, Calibration offset function	
Standard		
Water tank Dimension	W245 x D315 x H184	
Water tank material	Stainless SUS304	
External Dimension	W620 x D440 x H600	
Tank capacity	14L (liquid volume 13L)	
Power Source (50/60Hz)	AC100V 13A 50/60Hz	
Weight	Approx. 65kg	
Accessories	Lid, Drain pan for overflow/circulation nozzle	

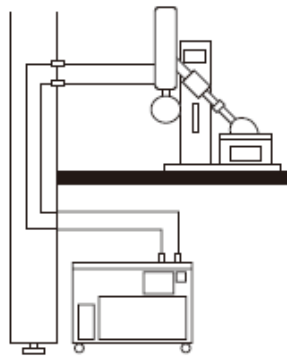
■ Control panel



■ Water tank



■ Example of installing under fume hood



When installing under fume hood or lab table, exhausting the accumulated hot air (minimum 3 m/min) is recommended.

■ Valve

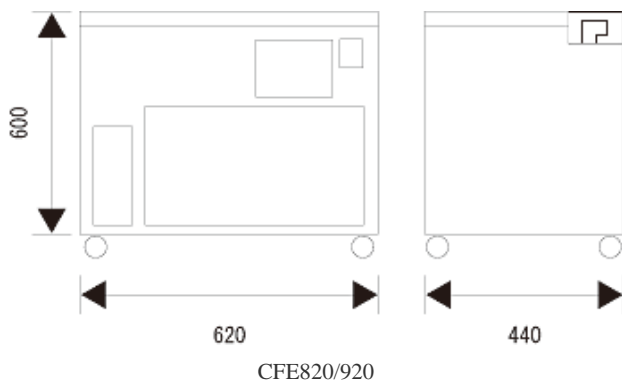


CFE820



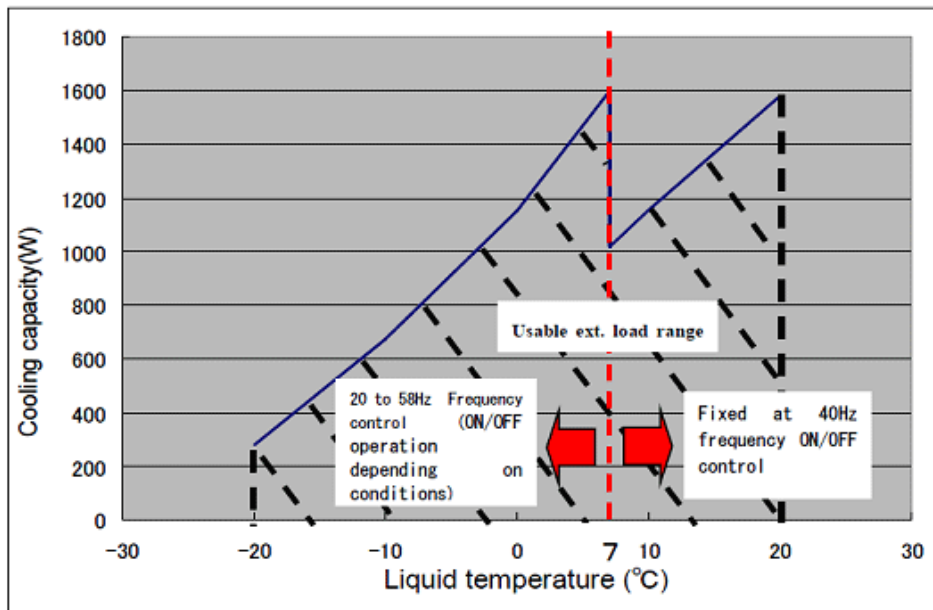
CFE920

■ Dimensional drawing (mm)

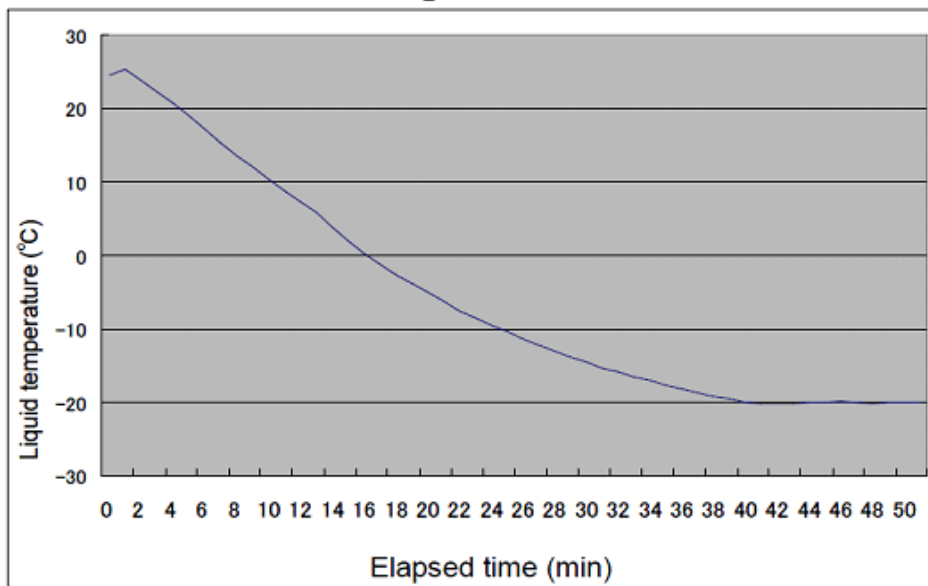


■ Cooling curve

Cooling capacity



Cooling characteristics



■ Optional Accessories

Description	Main Unit Model No.	Item Code
● External combination terminal	CFE820/CFE920	221592
● Temp. output terminal	CFE820/CFE920	221593
● External alarm terminal	CFE820/CFE920	221594
● Exhaust blower combination terminal	CFE820/CFE920	221597
Buchi combination cable	CFE820/CFE920	221598
Heat-resistant circulation hose (2m. X 2pcs., 6mm dia, High insulation type)	CFE820/CFE920	221595
Heat-resistant circulation hose (2m. X 2pcs., 9mm dia)	CFE820/CFE920	221581
Heat-resistant circulation hose (2m. X 2pcs., 9mm dia, High insulation type)	CFE820/CFE920	221599
Hose set for Buchi connection	CFE820/CFE920	221589
Straight circulation nozzle 8mm dia Rc3/8	CFE820/CFE920	221596
Straight circulation nozzle 10.5mm dia Rc3/8	CFE820/CFE920	221394
Straight circulation nozzle 13.0mm dia Rc3/8	CFE820/CFE920	221399
Straight circulation nozzle 16.0mm dia Rc3/8	CFE820/CFE920	221395

Note: The item marked " ● " shall be ordered together with the main unit.



External combination terminal/Temp. output terminal/External alarm terminal



Heat-resistant circulation hose



Straight circulation nozzle



Heat-resistant circulation hose
(High insulation type)