

Cooling Water Circulator

Externally closed circulation

CFE820/920

Operating temp. range -20~+20°C

Cooling capacity Approx. 730W (at -10°C)

- High power type with inverter. Power consumption is also reduced by up to 35%. (Compared with previous our company products)
- It is ideal for synthesis tests using rotary evaporators and for cooling external equipment that changes rapidly in temperature. It is particularly effective at low temperatures (0 to 20°C).
- Equipped with a circulating flow control cock and an overflow drain pan as standard.
- This is an external closed circulation system with a drainage cock, earth leakage breaker, and other operation parts located in the front, with emphasis placed on operability.
- CFE920 is equipped with two circulation systems, so it can cool two rotary evaporators simultaneously.



CFE820

CFE920

Specifications

Product code	221561	221562
Model	CFE820	CFE920
Circulation method	External closed circulation	
Operating temperature range	-20°C to +20°C	
Temperature control accuracy*1	±0.5°C(JTM K05) at -20°C	
Temperature fluctuation	1.6°C(JIS) at -20°C	
Cooling capacity*1	Approx.1100W, at fluid temp. 0°C	
	Approx.730W (559Kcal/h), at fluid temp. -10°C	
	Approx.270W (215Kcal/h), at fluid temp. -20°C	
External circulation pump max. flow*2	8.2 / 9.5L/min (50/60Hz)	12 / 14L/min (total of 2 systems) (50/60Hz)
External circulation pump max. lift*2	9.5 / 13m (50/60Hz)	
Number of external Circulation systems	1 system	2 systems
Internal tank	SUS304	
Temperature control	Refrigerator inverter frequency control, Refrigeration ON/OFF operation (3 minutes) depending on conditions	
Temperature sensor	T thermocouple	
Temperature setting, display	Digital setting and digital display	
Refrigerator/Refrigerant	Air-cooled sealed rotary type, 700W / R407C	
Cooling coil	Nickel plated copper	
External circulation nozzle	Rc3/8 with stop valves (Hose nipples are optional)	
Circulating pump (50/60Hz)	Magnetic drive pump, 125W	
Operating ambient temp. range*3	5 to 35°C	
Safety device	Overcurrent leakage breaker, Refrigerator overload relay protection circuit, Overheating (30°C or more), Refrigerator high pressure relay, Pump thermal protector, Refrigerator protection delay timer function, Circulation pump protective H bypass, Inverter overload protecting circuit	
Other functions	Drain, Overflow, Dust prevention filter, Water level gauge, Condensation drain pan for overflow and circulation nozzle, Calibration offset function	
Water tank Dimensions	W245×D315×H184mm	
Water tank material	Stainless steel SUS304	
External dimensions*2	W620×D440×H600mm	
Water tank capacity	14L (liquid capacity of 13L)	
Power supply (50/60Hz)	AC115V / AC220V Single phase with step-down transformer	
Weight	Approx. 65kg	
Accessories	Lid for water tank, Drain pan for overflow and circulation	

*1 Conditions: temperature and humidity: 23°C±5°C, 65%RH±20% (no load)

*2 Condition: Performance in water temp. 20°C.

*3 When installed under the laboratory table etc., exhaust ventilation (3m³/min or more) is required. The length of the power cord is about 2 meters outside the unit.

Control panel



Water tank

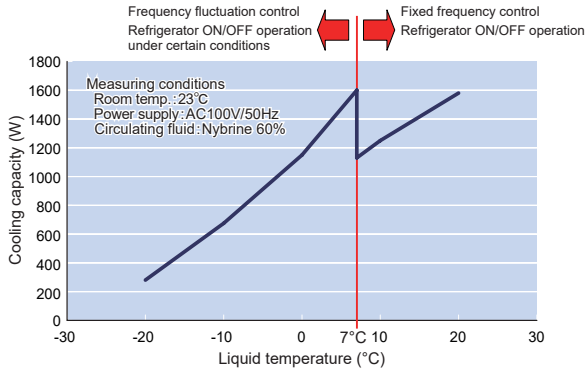


Valve (Back)

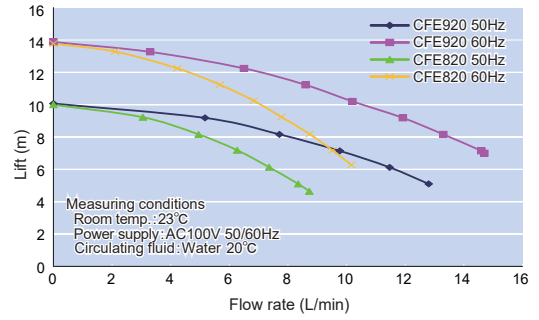


Circulation nozzles are optional.

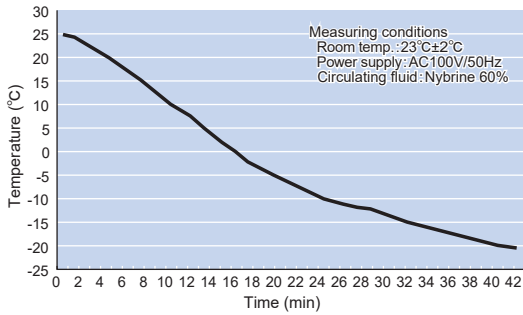
Cooling capacity curve



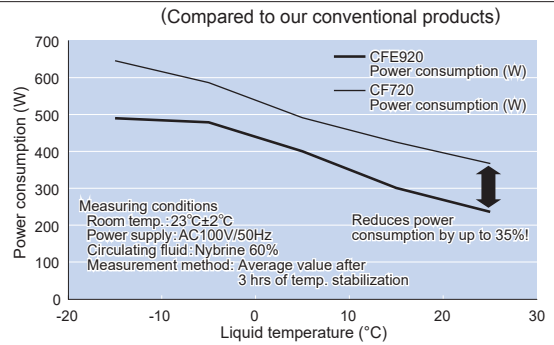
Flow Rate / Lift Curve



Cooling curve



Comparison of power consumption



Optional Items

No.	Description	Specifications	Product code
①	*External interlocking terminals		281488
②	*Temperature output terminal		281489
③	*External alarm terminal		281490
④	*Exhaust fan interlocking Terminals		281491
⑤	*Interlocking cables for Büch products		281492
⑥	Insulated circulation hose	Highly heat insulated, ϕ 6mm×2m length (2pcs)	221595
⑦		ϕ 9mm×2m length (2 pcs) with clamp (4pcs)	221581
⑧		Highly heat insulated, ϕ 9mm×2m length (2pcs)	221599
⑨	Straight circulation nozzle	ϕ 8mm, Connecting screw: Rc3/8	221596
⑩		ϕ 10.5mm, Connecting screw: Rc3/8	221394
⑪		ϕ 13mm, Connecting screw: Rc3/8	221399
⑫		ϕ 16mm, Connecting screw: Rc3/8	221395
⑬	Hose set for connection of Büch products	Set of insulated circulation hose (221595) and two straight circulation nozzles (221596)	281493

* Please specify when ordering main unit.

Example system configuration

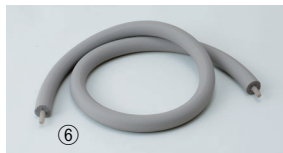
Fume hood, Rotary evaporator, CFE920



Example of integration into a fume hood



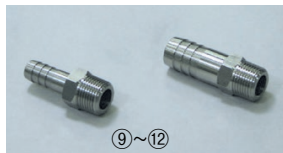
① External interlocking terminals
② Temperature output terminal
③ External alarm terminal



Insulated circulation hose (Highly heat insulated)



Insulated circulation hose 2m length (2 pcs) with clamp (4pcs)



Straight circulation nozzle

Dimensions (mm)

