

Cooling Water Circulators | External Closed System, Standard Type

CF303-Y, CF313-X, CF313-Y, CF812-D

Operating temp. range -20°C~30°C

Cooling capacity CF303-Y, CF313-X/Y: Approx. 450W (at 10°C)

CF812-D: Approx. 1230W (at 10°C)

High-capacity, water-saving closed-loop recirculating chiller.



Provides a stable supply of cooling water to the closed-loop cooling sections of research, analytical, and industrial equipment via a refrigeration unit and circulation pump.

Features

- Uses environmentally friendly refrigerants R452A / R407C.
- Waterproof operation panel with a simple, easy-to-read digital setting display.
- CF812-D can supply cooling water to two rotary evaporators (basic configuration).
- Equipped with safety features such as an earth leakage circuit breaker (ELCB) with over-current protection, an overload protection relay for the refrigeration unit, pump overheat protection, and a refrigeration start-delay timer.

New Control Unit



A high-brightness white LED display improves visibility and operability. The display can be switched between the measured temperature and the set temperature.

Specifications

Model		CF303-Y	CF313-X	CF313-Y	CF812-D	
System		External closed circulation by circulation pump				
Performance	Operating temp. range	-20°C~30°C				
	Temp. adjusting accuracy	±1.0°C (≥0°C), ±1.5°C (<0°C)			±1.0°C	
	Cooling capacity	Approx. 450W at liquid temp. 10°C		Approx. 1230W at liquid temp. 10°C		
Composition	Cooling capacity	Approx. 330W at liquid temp. -10°C		Approx. 700W at liquid temp. -10°C		
	Temp. control	Refrigeration Unit ON-OFF Control				
	Temp. sensor	Pt100Ω				
	Temp. setting, display	White LED digital display, key input				
	Refrigerator, refrigerant	Air cooling 450W, R452A			650W, R407C	
	Circulation pump	Magnetic pump				
		15W		20W	75/100W	
	Device Circulation Capacity	Max. flow rate	10L/min	9L/min	10L/min	Approx. 12L/min (50Hz) Approx. 14L/min (60Hz)
		Max. lift head	Approx. 5.7m	Approx. 4.3m	Approx. 5.7m	Approx. 10.3m (50Hz) Approx. 14.3m (60Hz)
	Cooling pipe	Stainless Steel SUS304			Stainless Steel SUS304	
	External circulation port	Snap-on connector, O.D. 10mm rigid pipe connection (with attached connectors, can connect to I.D. 9mm soft hose)				
	Operating ambient temp. range	5~35°C				
Safety device	Overcurrent leakage protection switch, refrigeration unit overload relay, pump overheating protector, refrigeration unit protection time-delay timer, temperature sensor abnormality, high/low temperature limit warning, fan protection					
Other functions	Circulation port condensation water drainage pipe, suction port dust filter, cooling operation switch, circulation pump switch, deviation correction, power outage reset mode selection function					
Specifications	Water bath material	Stainless steel				
	Water bath capacity	Approx. 3.9L (liquid volume 3.5L)			Approx. 15.5L (liquid volume 14L)	
	Power supply *	AC115V 6.6A 60Hz	AC220V 3.8A 50Hz	AC220V 4.0A 60Hz	AC220V 6.0A 50/60Hz	
	External dimensions (W×D×H mm) (including protrusions)	205×396×535 225×434×564 (Protruding Dimensions)			340×370×838 340×408×920 (Protruding Dimensions)	
Weight	Approx. 30kg			Approx. 43kg		
Accessories	1 condensation water drainage hose (1m), 2 hose clamps for fixing hoses, 2 hose nozzles (for soft hose connections), and 1 instruction manual.					

* Voltage modifications other than the listed specifications are also available. Please contact us for details.

Easy Connection of Circulation Pipes



Connection is simple—just insert rigid tubing (O.D. 10 mm). The rotating connector allows the tubing/hose direction to be adjusted freely without twisting the hose. Soft tubing (I.D. 9 mm) can also be connected using the supplied hose connector.

Condensate Drain



A condensate drain port is located near the top connectors. Attach the supplied drain hose to discharge condensate water.

Easy-to-clean filter



The front filter cover is secured with magnets, making it easy to remove for cleaning. The filter is a replaceable sheet type, allowing quick replacement and easy maintenance.

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