

Cooling Water Circulators | External Opened Loop, Standard

CLS312C/411C/610C

Operating temp. range CLS312C: -10°C~RT CLS411C/610C: -15°C~RT

Temp. adjusting accuracy ±1.5~±2°C

Strong cooling capacity, external opened cooling water circulator with ON-OFF control of the refrigeration unit.

Features

- External opened system cooling water circulator with temperature ranges of -10°C and -15°C is used.
- Equipped with a flow adjustment valve to freely adjust the circulation pump flow rate according to the size of water bath.
- Use a flow sensor to monitor pipeline flow, with an automatic stop protection device in case of pipeline blockage, indicated by a flashing red light.
- Include quick automatic stop, automatic stop, automatic start, deviation correction, power outage compensation, temperature output terminal, and other functions.

Safety

- Feature self-diagnosis function, overcurrent leakage protection switch, key lock, power outage compensation function, flow monitoring, refrigeration unit monitoring, refrigeration unit protection time delay timer, flow anomalies, high-pressure anomalies, and other safety protection devices.



Specifications

Model		CLS312C	CLS411C	CLS610C	
System		External opened loop circulation by circulation pump			
Performance	Operating temp. range	-10°C~RT	-15°C~RT		
	Temp. adjusting accuracy	±1.5~±2°C			
	Cooling capacity	Approx. 450W (387Kcal/h), at liquid temp. 15°C	Approx. 570W (490Kcal/h), at liquid temp. 15°C	Approx. 820W (705Kcal/h), at liquid temp. 15°C	
	Temp. control	Refrigeration Unit ON-OFF Control			
Composition	Temp. sensor	T-type thermocouple			
	Temp. setting, display	Digital setting, digital display			
	Refrigerator, refrigerant	Air cooling			
			200W, R404A	350W, R404A	600W, R404A
	Circulation pump		Magnetic pump		
	Device circulation capacity (50/60Hz)	Max. flow rate	5.4/6.2L/min	5.4/6.3L/min	6.7/7.8L/min
		Pump capacity	10.0/11.0L/min	10.0/11.0L/min	15.0/17.0L/min
		Max. lift head	3.5/5.0m	3.7/5.3m	6.2/8.7L/min
		Pump capacity	4.9/6.9m		8.0/11.0L/min
	Cooling pipe		Nickel-plated copper		
External circulation port		Inlet and outlet ports are outer diameter 13mm			
Operating ambient temp. range		5~30°C			
Safety device		Self-diagnosis function, overcurrent leakage protection switch, key lock, power outage compensation function, flow monitoring, refrigeration unit monitoring, refrigeration unit protection time delay timer, flow anomalies, high-pressure anomalies			
Other functions		Flow adjustment valve, drainage valve, condenser filter, temperature output terminal, deviation correction function, key lock function, power outage compensation function			
Specifications	Water bath dimensions		Inner diameter 120× depth 200mm	Inner diameter 150× depth 200mm	
	Water bath material		Stainless steel		
	Water bath capacity		1.5L	3L	
	Power supply (50/60Hz)		AC220V 3A	AC220V 3.5A	AC220V 5.5A
	External dimensions (W×D×H mm)		410×460×550	380×513×725	380×615×725
	Weight		Approx. 40kg	Approx. 45kg	Approx. 60kg
Accessories		1 thermal insulation pipe for circulation, 1 pump circulation pipe, 4 clamps, 1 drainage pipe			

1 Sterilizers

2 Granulation and Spray Dryers

3 Muffle Furnaces

4 Ovens

5 Incubators

6 Plasma Equipment

7 Water Purifiers

8 Baths

9 Water Circulators

10 Rotary Evaporators

11 Freeze Dryers & Cold Traps

12 Stirrers & Shakers

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14 Analysis and Test Devices

15 Options