

Water Bath (Low Constant Temp.)

BBL111C/311C

Operating temp. range -10~+80°C

Temp. distribution accuracy $\pm 0.3^{\circ}\text{C}$

Internal capacity 8L BBL111C 13L BBL311C

Benchtop low constant temp. water bath with wide operating temperature range and sufficient bath capacity.



8L
BBL111C

13L
BBL311C

■ Operation and functions

- Precise temperature control accuracy of $\pm 0.1^{\circ}\text{C}$.
- Can easily operate the water valve to switch internal and external circulations.
- Adjustable shelf plate height up to 2 sections.
- Fixed temperature, auto stop and auto start operation functions with auxiliary functions such as RS485 communication function and temp. output terminal (4~20mA).

■ Safety features

- Overcurrent ELB, self-diagnosis, refrigerator pressure detection, float switch preventing pump idling, refrigerator overload protector relay, refrigerator delay timer of protection, etc..

■ Specifications

Model	BBL111C	BBL311C
System	Pump circulation cooling / external circulation	
Operating temperature range	-10~+80°C (at room temperature 20°C)	
Temperature control accuracy	$\pm 0.1^{\circ}\text{C}$	
Temp. distribution accuracy	$\pm 0.3^{\circ}\text{C}$	
Temp. indicating unit	0.1°C	
Cooling capacity	Approx. 300W (260Kcal/h), at fluid temp. 15°C	Approx. 410W (350Kcal/h), at fluid temp. 15°C
Temperature control	PID control	
Operation function	Fixed temp., auto stop, auto start	
Temperature sensor	Temp. controller: Pt thermal resistance, Overheat protection: K thermocouple	
Temp. setting, display	Digital setting and display	
Refrigerator, refrigerant	Air cooling 160W, R134A	350W, R134A
String method	Magnetic drive pump	
Unit circulation ability (50/60 Hz)	Max. flow	3.7 / 4.7L/min
	pump capacity	11 / 12L/min
	Max. lift	1 / 1.5m
	pump capacity	1.5 / 2.1m
Heater	700W	900W
Cooling coil	Nickel-clad copper	
External circulation nozzle	O.D. 11mm of water outlet and return port	
Operating environmental temp. range	5~30°C	
Safety device	Overcurrent ELB, Self-diagnosis, Refrigerator overload protector, Refrigerator delay timer of protection, Refrigerator pressure detection, Float switch preventing pump idling, Auto overheat protection, Overheat protector, Key lock, etc..	
Other functions	Water valve, Condenser filter screen, Deviation correction, External communication (RS485), Refrigerator pressure indicator, Power outage compensation, Temp. output terminal	
Bath dimensions (W×D×Hmm)	300×150×177.5	300×240×177.5
Bath effective dimensions (W×D×Hmm)	300×150×155	300×240×155
Bath capacity (effective)	8L (6.75L)	13L (11.5L)
External dimensions (W×D×Hmm)	500×530×500	500×600×500
Power source (50/60Hz)	AC220V 5A	AC220V 6A
Weight	Approx. 50kg	Approx. 55kg
Accessories	Bottom shelf plate, Top cover, Drain pipe, Overflow pipe	

■ Max. quantity of erlenmeyer flask

Model	300mL	500mL	1000mL
BBL111C	3 pcs.	2 pcs.	--
BBL311C	5 pcs.	3 pcs.	2 pcs.

Control Panel



Side View



Equipped with water switch valve to easily switch ON/OFF the external circulation. Nozzle diameter 10.5mm.

Sample Application



Dimensions (mm)

