

Water Bath (Low Constant Temp.)

BBL101/301

Operating temp. range -10~+80°C

Temp. distribution accuracy ±0.3°C

Bath capacity 8L BBL101 13L BBL301

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

Operation and functions

- Precise temperature control accuracy of ±0.1°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).



Specifications

Product code	221379	221591
Model	BBL101	BBL301
System	Pump circulation cooling / External closed circulation	
Operating temp. range*1	-10 to +80°C (at room temperature 20°C)	
Temp. control accuracy*1	±0.1°C	
Temp. distribution accuracy*1	±0.3°C	
Cooling capacity*1	Approx. 370W (320Kcal/h), at fluid temp. 15°C	Approx. 410W (350Kcal/h), at fluid temp. 15°C
Usable ambient temp. range	5 to +30°C	
Temperature control	PID control	
Operation function	Fixed temp., auto stop, auto start	
Temperature sensor	Double sensor: Pt100Ω (Temp. controller) + K Thermocouple (Overheat prevention device)	
Refrigerator / Refrigerant	160W, air-cooled sealed rotary / R134a	300W, Air cooled closed reciprocator / R404A
Stringing method	Magnetic drive pump	
Circulation capacity (50/60 Hz)	Max. flow (pump capacity) : 3.7 / 4.7L/min (11 / 12L/min) Max. lift (pump capacity) : 1 / 1.5m (1.5 / 2.1m)	
Heater	700W	900W
Safety device	Over-current leakage breaker, Refrigerator overload relay, Refrigerator pressure detection, Float switch to prevent empty boiling, Delay timer function to protect the refrigerator, Automatic overheat prevention function, Overheat prevention device, Power failure compensation function, Key lock function	
Other functions	Drain cock, Condenser filter, RS485 communication function, Temperature output terminal, Refrigerator pressure switch indicator, Calibration offset function	
Bath dimensions*2	W300×D150×H177.5mm (effective : W238×D100×H85mm)	W300×D240×H177.5mm (effective : W238×D190×H85mm)
Bath capacity (effective)	8L (6.75L)	13L (11.5L)
External dimensions*2	W500×D530×H500mm	
Power source (50/60Hz)	AC220V 5A Single phase with step-down transformer	
Weight	Approx. 50kg	Approx. 55kg
Accessories	Bottom shelf plate (1 pc.), 0.5m Drain hose (1 pc.), 0.5m Overflow hose (1 pc.) Lid (1 pc.)	

*1 Performance data is based on room temperature of 20°C with no load and rated power supply voltage of 50Hz. The performance will vary depending on the ambient temperature and operating conditions.

*2 Protruding parts are not included in the bath dimensions and external dimensions.

The length of the power cord is about 2m outside the unit.

(Note) The freezer is turned off when the temperature setting is 40.1°C or higher, so it cannot be cooled.

Optional items

Description	Specifications	Product code
External communication adapter	RS485 - RS232C conversion	281387
Shelf for BBL101	With 4 shelf supports	221586
Shelf for BBL301	With 4 shelf supports	221587

Control Panel



Control Panel

Pump and refrigerator monitoring indicator

Side View



- A water stop valve is installed on the discharge side, so external circulation can be changed with one touch. nozzle diameter : 10.5mm.
- Drain cock ● Overflow drain port

Sample Application



Max. quantity of erlenmeyer flask

Model	300mL	500mL	1000mL
BBL101	3 pcs.	2 pcs.	--
BBL301	5 pcs.	3 pcs.	2 pcs.

Dimensions (mm)

