

Water Bath (Low Constant Temp.)

BB311C/411C/611C

Operating temp. range -30~+80°C

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

Bath capacity 6L BB311C 13L BB411C 26L BB611C

Low constant temp. water bath with precision accuracy of $\pm 0.1^{\circ}\text{C}$ under $-30^{\circ}\text{C}+80^{\circ}\text{C}$.



■ 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 3 sections.
- Fixed temperature, auto stop and auto start operations with auxiliary functions such as RS485 communication function and temp. output terminal (4~20mA).

■ Safety features

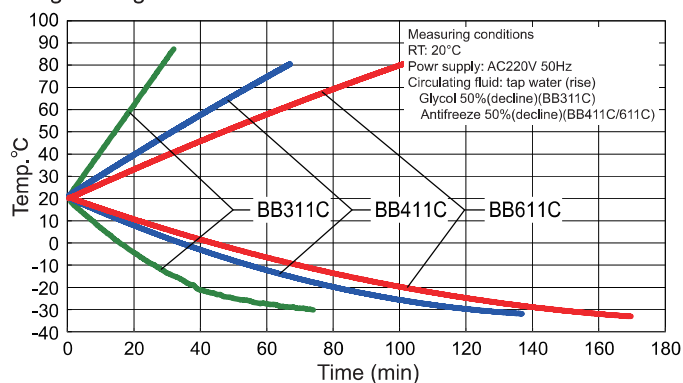
- Overcurrent ELB, self-diagnosis, refrigerator pressure detection, float switch preventing pump idling, refrigerator overload protector relay, refrigerator delay timer of protection, etc..

■ Specifications

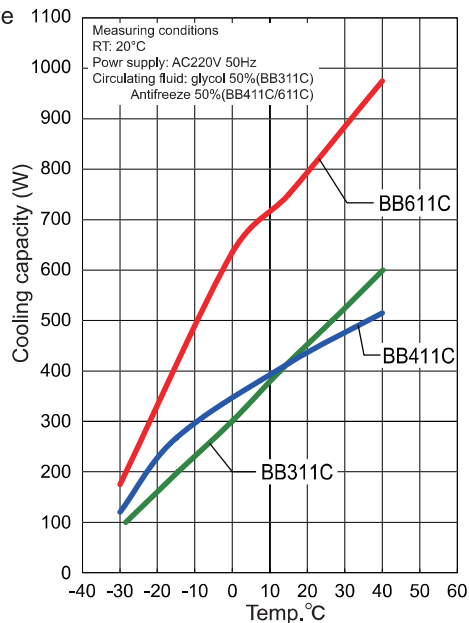
Model		BB311C	BB411C	BB611C
Operating temperature range		-30~+80°C		
Temperature control accuracy		±0.1°C		
Temperature distribution accuracy		±0.3°C		
Temperature indicating unit		0.1°C		
Cooling capacity		Approx. 420W (361Kcal/h), at fluid temp.15°C	Approx. 510W (439 Kcal/h), at fluid temp.15°C	Approx. 730W (628Kcal/h), at fluid temp.15°C
Temperature control		PID control		
Operation function		Fixed temp., Auto stop , Auto start operations		
Temperature sensor		Temp. controller: Pt thermal resistance, Overheat protection: K thermocouple		
Temperature setting, display		Digital setting and display		
Refrigerator, refrigerant		Air cooling		
		300W, R404A	350W, R404A	600W, R404A
Unit circulation ability(50/60Hz)	Pump max. flow	14/15L/min. (Circulation pressure loss when below 10kPa)		
	Pump max. lift	2.8/3.4m (water flow about 0.5L/min)		
Heater		Stainless steel pipe heater		
		850W	1.2KW	
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 dimension (W×D×Hmm)		150×300×170	250×315×190	330×435×200
Bath effective dimension (W×D×Hmm)		120×140×140	220×150×160	300×285×170
Bath capacity		6L	13L	26L
External dimensions (W×D×Hmm)		380×460×880	420×550×880	440×650×880
Power supply (50/60Hz)		AC220V 5A	AC220V 6A	AC220V 9A
Weight		Approx. 46kg	Approx. 53kg	Approx. 70kg
Accessories		Top cover, Drain pipe, Overflow pipe		

Heating/cooling·cooling capacity curve·flow/lift curve

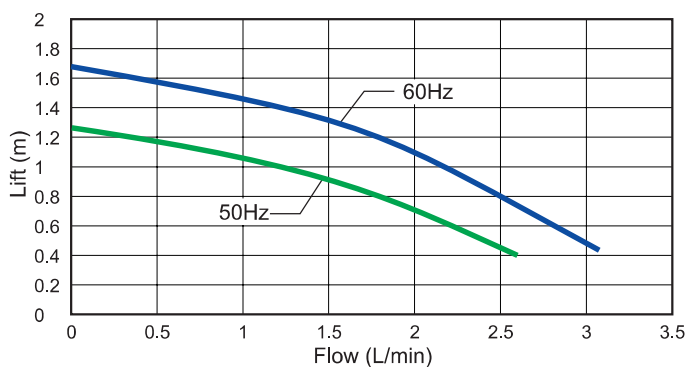
Heating/cooling curve



Cooling capacity curve



Flow / lift curve



Control Panel



Back view



- I'm not sure what the highlighted statement means so please validate my re-phrased statement: Water stop valve at the back of the unit allows easy switch of external circulation. Nozzle dia.10.5Φ.
- RS485 external communication
- Temp. output terminal

Sample case



Dimensions (mm)

