Heating Bath Circulators (General)

















Performance

- •Temperature range from ambient +5 $^{\circ}$ C to 150 $^{\circ}$ C.
- · Microprocessor PID control.
- Three point temperature calibration / Automatic tuning / Automatic run.
- · Accurate, stable, and efficient temperature management by using a powerful variable-speed pump. (1 to 3 steps of pump for internal circulation and 4 to 5 steps for external circulation)
- · Powerful pump pressure and flow rate throughout the whole temperature range.

Convenience

- Bright VFD display with quick adjustable dial knob. (0.1 °C resolution)
- Dual wait on/off timer modes. (1 min. to 99 hr. 59 min.)
- Convenient memory function of up to three frequently set temperature.
- · Corrosion-resistant, leak-proof, round-cornered, and easy-to-clean stainless steel bath with front access drain valve.
- RS-232 interface for external control and data collection. (RS-232 to USB serial converter is provided.)
- Side handles enables convenience handling and transport.

Safety

- · Isolated design of agitator, heater, and sensor by a baffle plate to minimize the turbulence in the bath fluid and also to protect users and samples against direct contact
- · Complete safety protection system with warning alarms.
- Low fluid level and dry-running, over-temperature,
- · Keypad lock function prevents accidental changes during operation.

External and internal circulation with powerful pumping capability



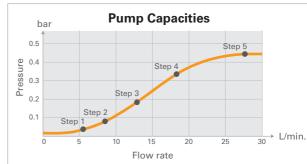
CW3-10

Standard accessories

- · Stainless steel flat cover
- · Silicone rubber tubing (1ft length / 12mm inner dia.)

Optional accessorie see page 28-29

• Test tube racks, Spring wire racks



* Bath fluid: Water at the normal temperature.

	Model	CW3-05	CW3-10	CW3-20	CW3-30	
Bath volume (L / cu ft)		5 / 0.2	10 / 0.4	20 / 0.7	30 / 1.1	
Working temperature range ²⁾ (°C / °F)		Amb. +5 to 150 / Am	Amb. +5 to 150 / Amb. +9 to 302			
Temperature stability 1) (±°C /°F)		0.05 / 0.09	0.05 / 0.09			
Dumn	Max. pressure	5.9 PSI (406.8 millibar)				
Pump	Max. flow rate	7.4 gallons / minute (2	7.4 gallons / minute (28 liters / minute)			
Dimension	Bath opening / depth (WxL, D) (mm / inch)	150×99, 160 / 5.9×3.9, 6.3	211×154, 180 / 8.3×6.1, 7.1	290×214, 200 / 11.4×8.4, 7.9	300×264, 230 / 11.8×10.4, 9	
	Exterior (WxLxH) (mm / inch)	228×395×424 / 8.9×15.6×16.7	289×450×444 / 11.4×17.7×17.5	368×510×464 / 14.5×20.1×18.3	378×560×494 / 14.9×22×19.4	
	Net weight (kg / lbs)	12.5 / 27.6	15 / 33	17.5 / 38.6	19.5 / 43	
Electrical requirements (230V, 50/60 Hz)		8.5A	8.5A	8.5A	8.5A	
Cat. No.		AAH52341K	AAH52351K	AAH52361K	AAH52371K	
Electrical requirements (120V, 60 Hz)		8.6A	8.6A	8.6A	8.6A	
Cat. No.		AAH52342U	AAH52352U	AAH52362U	AAH52372U	

²⁾ If you operate the unit in 1 to 3 steps of pump, the temperature range can be from Amb. +5°C but in 4 and 5 steps, the range will be from Amb. +15°C. * FDA establishment registered company. FDA listed products.

Accessories & Options

for Heating Baths & Bath Circulators







Transparent polypropylene gable covers Stainless steel flat covers

Open-rings covers

Transparent polypropylene gable covers

Designed to protect samples from contamination due to direct dripping of the bath liquid.

Cat. No.	Suitable for
AAA45531	BW-05H / BW-05B
AAA45532	BW-10H / BW-10B
AAA45533	BW-20H / BW-20B

Stainless steel flat covers

Made of stainless steel to prevent corrosion and rust.

Cat. No.	Suitable for	
AAA45541	BW-05H / BW-05B	
AAA45542	BW-10H / BW-05B	
AAA45543	BW-20H / BW-05B	

Open-rings covers

Beakers or Erlenmeyer flasks can be placed directly onto the perforated stainless steel half-shelf adjuster or water tank bottom. By adjusting ring size for each glassware, liquid loss due to evaporation is minimized.

Cat. No.		Description	Suitable for	
AAA45521	with 2 openings	Ø80mm / Ø3.1″	DIALOELL / DIALOED	
AAA45524	with 1 opening	Ø110mm / Ø4.3"	BW-05H / BW-05B	
AAA45522	with 4 openings	Ø80mm / Ø3.1″		
AAA45525	with 2 openings	ø110mm / ø4.3"	BW-10H / BW-10B	
AAA45526	with 1 opening	Ø185mm / Ø7.3″		
AAA45523	with 8 openings	Ø80mm / Ø3.1 ″		
AAA45527	with 6 openings	Ø110mm / Ø4.3″	BW-20H / BW-20B	
AAA45528	with 2 openings	Ø185mm / Ø7.3″		
AAA41561	with 2 openings	Ø80mm / Ø3.1″	DIALOGO	
AAA41564	with 1 opening	Ø110mm / Ø4.3″	BW-05G	
AAA41562	with 4 openings	Ø80mm / Ø3.1"		
AAA41565	with 2 openings	Ø110mm / Ø4.3"	BW-10G	
AAA41566	with 1 opening	Ø185mm / Ø7.3″		
AAA41563	with 6 openings	Ø80mm / Ø3.1″		
AAA41567	with 4 openings	Ø110mm / Ø4.3"	BW-20G	
AAA41568	with 1 opening	Ø185mm / Ø7.3″		

Test tube racks

Highly durable stainless steel test tube racks feature adjustable angle and tube height support without requiring any base plate. You can easily mount and release test tube racks.

Cat. No.	Description		Insert Capacity	of Racks*
AAA44581	for 86 test tubes	Ø8mm / Ø0.3″	BW-10G	
AAA44582	for 86 test tubes	Ø10mm / Ø0.4″	CW-20G/P, 30G/P RW3-2025/P, 2040/P RW-33025/P, 3040/P	BW-20G
AAA44583	for 58 test tubes	Ø12mm / Ø0.5″		
AAA44585	for 32 test tubes	Ø16mm / Ø0.6″		
AAA44586	for 19 test tubes	ø25mm / ø1.0″	2ea	3ea
AAA41531	for 50 test tubes	Ø8mm / Ø0.3″	BW-05B BW-05G	
AAA41532	for 50 test tubes	Ø10mm / Ø0.4"		RW3-1025/P RW3-1040/P CW3-10/P
AAA41533	for 33 test tubes	Ø12mm / Ø0.5″		
AAA41535	for 16 test tubes	Ø16mm / Ø0.6″		
AAA41539	for 10 test tubes	ø25mm / ø1.0″	1ea	
AAA45551	for 176 test tubes	Ø8mm / Ø0.3″	BW-10H BW-10B	BW-20H BW-20B
AAA45552	for 176 test tubes	Ø10mm / Ø0.4"		
AAA45554	for 84 test tubes	Ø12mm / Ø0.5″		
AAA45556	for 68 test tubes	Ø16mm / Ø0.6″		
AAA45561	for 33 test tubes	ø25mm / ø1.0″		2ea

^{*} No declination.



Spring wire racks

Ideal for holding a wide variety of tubes, flasks, and other glassware. All components are made of stainless steel.

Cat. No.	Suitable for
AAA45502	BW-10H / BW-10B
AAA45503	BW-20H / BW-20B
AAA41502	BW-10G
AAA41503	BW-20G
AAA51522	CW3-20/P / RW3-2025/P, 2040/P
AAA51523	CW3-30/P / RW3-3025/P, 3040/P



Spring wire racks (two tier rack with flexible crossed spring)

Half-shelf adjusters

Stainless steel perforated sample tray shelves with adjustable height support prevent leaks and guard against rust and contamination.

Cat. No.	Suitable for
AAA45511	BW-05H / BW-05B
AAA45512	BW-10H / BW-10B
AAA45513	BW-20H / BW-20B
AAA41551	BW-05G
AAA41552	BW-10G
AAA41553	BW-20G



Half-shelf adjusters

for Viscometer Heating Baths

Viscometer tube holders

Specially designed to hold a two-opening viscometer glass tube and made of Bakelite, renowned for its high thermal endurance.

Cat. No.	Suitable for
AAA43501	VB-25G (need max. 5 holders)
AAA43301	VB-40G (need max. 8 holders)





Viscometer tube holders

Cooling circulators

The temperature range of viscometer heating baths can be lowered up to $+10^{\circ}$ C ($+50^{\circ}$ F) when used with an optional cooling circulator.

Cat. No.	Description	Suitable for	
AAH57051K	RW3-1025 (230V, 60Hz)	VP 2FC (200) (2015)	
AAH57651K	RW3-1025P (230V, 60Hz)	VB-25G (230V, 60Hz)	
AAH57052K	RW3-1025 (230V, 50Hz)	VB-25G (230V, 50Hz)	
AAH57652K	RW3-1025P (230V, 50Hz)		
AAH57061K	RW3-2025 (230V, 60Hz)	VB-40G (230V, 60Hz)	
AAH57661K	RW3-2025P (230V, 60Hz)		
AAH57062K	RW3-2025 (230V, 50Hz)	VB-40G (230V, 50Hz)	
AAH57662K	RW3-2025P (230V, 50Hz)		

^{*} Refer to p.22 to 25 for more information on the cooling circulators.