

Cooling pump CH-1500AF/2200AF/3750WF/5500WF

Chiller with high cooling capacity even in negative temperature range and circulation from -20°C to +20°C. Dedicated for low-temperature heating media.

Features

- The standard temperature range is -20°C to +20°C
- High cooling capacity at low temperatures
- Various customizations are possible, including Pumping capacity

Applications

- The cooling for Processing machinery, Semiconductor manufacturing equipment, etc.
- Temperature control for Etching equipment



CH-3750WF

For temperature control in low temperature range

This chiller is ideal for low-temperature ranges when constant temperature water controlled at negative temperatures is required. CH-1500/2200AF are air-cooled type and do not require primary cooling water.

CH-3750/5500WF are water-cooled type and require specified primary cooling water, but they have high cooling capacity and do not exhaust heat to the room.

Customizable upon request

Can be customized based on the following specifications upon request.

- ★ Installation of a heater (improved temperature accuracy)
- ★ Flow rate/pressure change of circulation pump
- ★ Control by switching internal/external temperature sensor

Please feel free to contact us for more information.

Cooling system		Air-cooled		Water-cooled	
Model		CH-1500AF	CH-2200AF	CH-3750WF	CH-5500WF
Temperature range		-20°C to +20°C			
Control accuracy (*1)		±2.0°C, Compressor On-Off control		±2.0 to 3.0°C, Compressor On-Off control	
Cooling capacity		Circulation temperature at -20°C: 0.5 kW	Circulation temperature at -20°C: 1.7/2.3 kW	Circulation temperature at -10°C: 3.8/4.1 kW	Circulation temperature at -10°C: 5.7/6.1 kW
		Circulation temperature at 0°C: 1.5/1.6 kW	Circulation temperature at 0°C: 3.0/3.1 kW		
Compressor output/ Refrigerant		1.5 kW, R404A	2.2 kW, R404A	3.75 kW, R404A	5.5 kW, R404A
Pumping capacity	Max. discharge pressure [MPa]	0.3		0.57	
	Flow rate [L/min]	23/34 (at 0.3 MPa)		40 (at 0.3 MPa)	
	Motor output [kW]	0.4		0.75	
Heating medium (Circulating fluid)		Heating medium for low temp.			
Required primary cooling water rate [L/min] (*2)		-		30 (cooling water temperature: +30°C)	80 (cooling water temperature: +30°C)
Safety device/function		Short/Over current breaker, Phase-reversal relay, Refrigerant high pressure, Refrigerator overload, Compressor heating, Circulating fluid high temperature, Pump overload, Circulating flow reduction			
Connecting pipe diameter (Circulating fluid in/out)		Rc1/2	Rc1	Rc1	
Dimensions (WxDxH)		500 × 555 × 947 mm	570 × 677 × 1291 mm	756 × 1021 × 1582 mm	
Weight		approx. 92 kg	approx. 180 kg	approx. 305 kg	approx. 400 kg
Power Supply (three phase AC 200 V, 50/60 Hz) (*3)		20 A	30 A	30 A	75 A
Operation current (50/60 Hz)		7 A	10 A	18 A	30 A

(*1) There may be a case where the temperature performance cannot be maintained due to environmental temperature, heat load, circulation pipe distance, etc.

(*2) Capacity of water-cooled type varies with the water temperature. Please note it may cause a defect if the flow rate does not increase at high temperature, so please confirm if the required flow rate is secured in advance.

(*3) Need a step-down transformer outside when used.

•The specifications described when using Antifreeze (Show Brine Blue).

NEW

Constant-temperature incubator/shaker OD Monitor

For cell culture related products

Shaker

Mixer Rotator Stirrer

Bead beater homogenizer Ultrasonic homogenizer

Aluminum block Bath Mini-size Bath

Water bath Spiking Water bath Immersion cooler

Hybridization Incubator Constant temperature Chambers

Centrifugal Concentrators Cold Trap

Freeze dryers

Substrate Electroporation apparatus Blotting device for hybridization

Constant-temperature water circulating system [Chiller]

Appendix