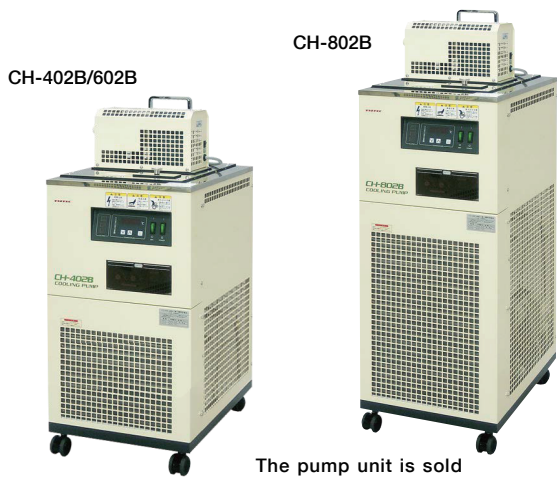


# Cooling pump CH-402B/602B/802B

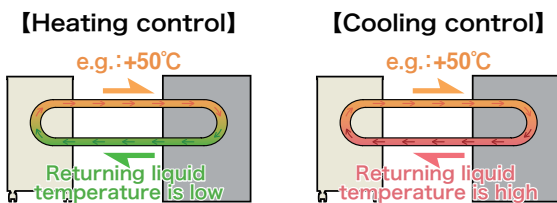
**Air-cooled type CH series having excellent in portability for 200 V power supply. Built-in heater makes precise temperature control. Cooling in high temperature range, Wide temperature range, Various output and external sensor are available.**

Pump unit (Sold separately) --> P.182 External dimensions --> P.183



The pump unit is sold separately.

## Cooling in high temperature range.



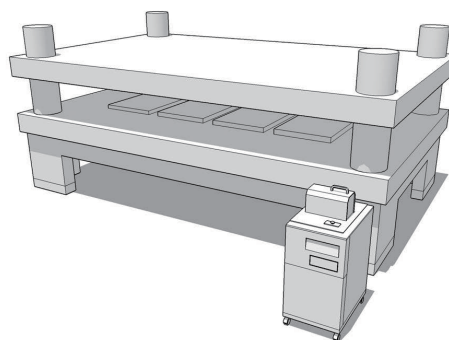
For temperature control in high temperature range, general chiller is only heating control. Cooling in high temperature range is required in this temperature control.

## Features

- The air-cooled integrated chiller, not requires the primary cooling water and plumbing.
- The unit type pumps can be selected according to purpose. •Cooling in high temperature range.

## Main Applications

- Precise temperature control for a press die machining.

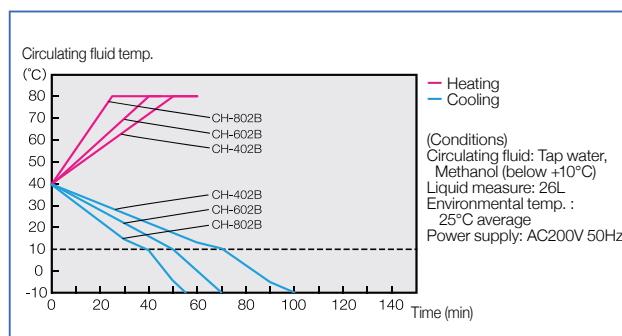


Precise temperature control for the upper and lower stages of press die machining. Circulate two with one unit is available as an option, enables to control the temperature of the upper and lower stages of the press working mold (within the capability).

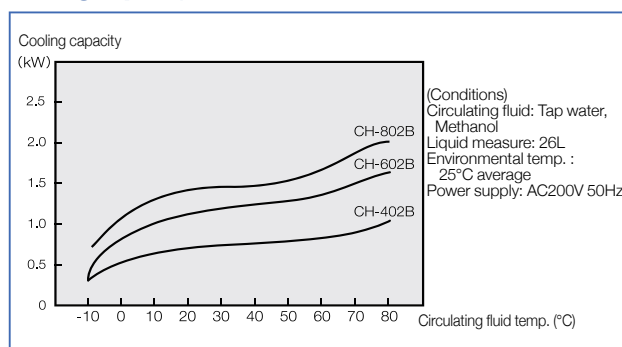
Model	CH-402B	CH-602B	CH-802B
Temperature range (*1)	-10°C to +80°C		
Ambient temperature range	+5°C to +35°C		
Control accuracy (*2)	±0.5°C, Heater PID control		
Compressor output, Refrigerant	400W, R404A	600W, R404A	750W, R404A
Cooling capacity (at 50Hz) (*3)	approx. 0.7kW	approx. 1.0kW	approx. 1.3kW
Heater output	1.8kW	2.25kW	3kW
Temperature setting display	Digital system (setting/display switching system)		
Safety device/function	Short/Over current breaker, Alarm and warning for compressor, High and Low temperature, Alarm and warning for pump motor, Temperature sensor abnormality diagnosis circuit, Alarm for replenishing liquid, Low-water cut off, Phase-reversal relay		
Other Functions	Temperature check monitor, Remote temperature setting, Temperature monitor signal output, Safety device actuation signal output, External temperature sensor connection (*4)		
Water bath capacity (*5)	approx. 26L (water level 80%)		
Applicable pump unit (*6)	P-320, P-420, P-52		
Dimensions (Pump unit not included)	407×565×766Hmm		407×565×996Hmm
Weight (Pump unit not included)	approx. 66kg	approx. 68kg	approx. 75kg
Power Supply (Pump unit not included)	AC200V·50/60Hz, Three-phase		
	10A	15A	20A
Operation current (Pump unit not included)	8A	10A	15A
Standard Accessory	Power code , Drain hose x 1, Connector for signal x 1		

(\*1)When setting below +7°C, please be sure to use antifreeze (Please ask us what type of). (\*2)Performance may not be maintained due to heating medium, environmental temperature, heat load, circulation pipe distance etc. (\*3) Capacity when using tap water and the circulating fluid temperature at 10 °C. The capacity varies with the pump unit mounted. The capacity decreases when the ambient temperature above +30°C. (\*4) External temperature sensor (φ4×250mm) is available as an option. (\*5) Due to not the sealed structure, the circulation liquid might evaporates and reduces depending on the set temperature and heating medium type. (\*6)Please refer the pump units on p182.

## Heating/Cooling curve



## Cooling capacity curve



Selection guide  
Constant temperature incubator/shaker  
CO<sub>2</sub> incubator/shaker  
Shaker  
Mixer  
Rotator  
Stirrer  
Bead beater  
homogenizer  
Ultrasonic homogenizer  
Aluminum block bath  
Minimize bath  
Water bath  
Shaking water bath  
Immersion cooler  
Hybridization oven  
Constant temperature chamber  
Centrifugal concentrator  
Cold trap  
Freeze dryer  
Electrophoresis and Blotting apparatus  
Constant temperature water circulating system [Chiller]