

Coolnit CL-80R/150R/300N/600N

The line-up of open circuit chillers can be chosen according to the required capacity and temperature control accuracy. Precise temperature control type. Various output and external sensor can be used. Closed circuit can be available as an option.

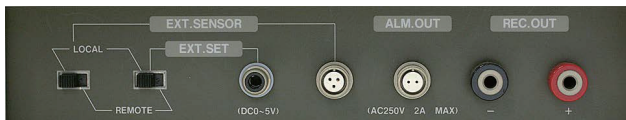
Features

- For open circuit machine use for circulate mainly to water bath.
- Can be circulated to closed circuit machine as an option.
- Various output and external sensor can be used.
- Cooling in high temperature range [CL-600N].

Main Applications

- Circulation into temperature control water bath for inspection samples.
- Temperature control for culturing apparatus and analytical instruments [option].

Thermograph and safety device actuation signal can be used.



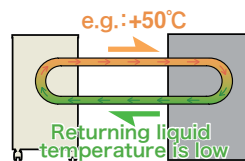
Output of thermograph, safety device actuation signal and optional external sensor. Programmed control is available by using optional program unit.



CL-600N

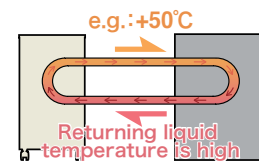
Cooling in high temperature range [CL-600N]

[Heating control]



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

[Cooling control]



Cooling in high temperature range is required in this temperature control.

CL-600N is equipped with a function "Cooling at high temperature range" can cooling control in even high temperature region.

Model	CL-80R	CL-150R	CL-300N	CL-600N
Temperature range	-10°C to +70°C		-15°C to +70°C	
Control accuracy (*1)	±0.03 - 0.3°C		±0.05 - 0.5°C	
Cooling capacity (*2)	approx. 140W	approx. 270W	approx. 410W	approx. 750W
Compressor (air cooled-type) output, Refrigerant	75W, R134a	150W, R134a	250W, R404A	600W, R404A
Pumping capacity (50/60Hz)	Max. flow rate	approx. 7/8 L/min	approx. 9/10 L/min	
	Max. lift height	approx. 2/2.8 m	approx. 4/6 m	
Heater	450W	600W	1.4kW	1.8kW
Nozzle diameter	Outer diameter φ13mm		Outer diameter φ22mm	
Safety device/function	Short/Over current breaker, Low flow (buzzer and LED display), High temperature, Freezer high temperature cutting circuit (auto stop at 40°C of circulating fluid in CL-80R, CL-150R and CL-300N)			
Other Functions	Digital flow display, Remote temperature control connector, Connector for external sensor, External output terminal of cutout operation, Output terminal for thermograph (DC 0 - 1V, -20 - +80 °C)			
Dimensions	230×395×455Hmmm	250×425×525Hmmm	380×540×706Hmmm	
Weight	approx. 26kg	approx. 35kg	approx. 62kg	approx. 74kg
Power Supply (*3)	AC100V·7.3A	AC100V·13.5A	AC100V·20A	AC100V·30A
Standard Accessory	Heat insulating hose for circulation (1m) x 2, Hose band x 2			

(*1) When using enough water and agitation inside water bath is good. Temperature regulation accuracy may vary depend on circulating fluid, setting temperature, environmental temperature, bath volume and circulating flow.

(*2) When circulating fluid is +10°C, 50Hz. (*3) Allowance of voltage variation is ±5% for AC 100V.

•Environmental temperature for this product is +5°C - +30°C. When using at above +30°C, cooling capacity may reduce. Lid of water bath may needed depend on bath shape and setting temperature.

•Please do not use pure water or distilled water. These may cause breakdown of machine.

•Please use heating medium when setting below +7°C.

•External program control is possible by using optional program unit only in the case below 40°C.

● Protuberances not included in Dimensions. ● Vessels of photo not included.

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[2019-2020 General Catalog] **TAITEC**

Selection
guide

Constant
temperature
incubator shaker
OD-Monitor

CO₂ 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

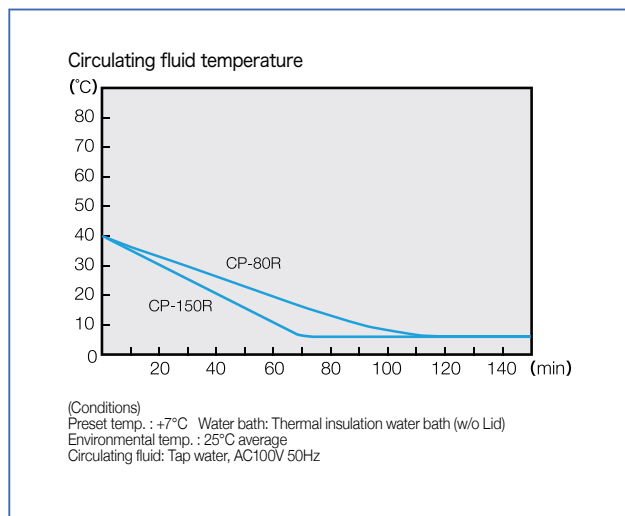
Electrophoresis
and
blotting apparatus

Constant
temperature
water circulating
system [Chiller]

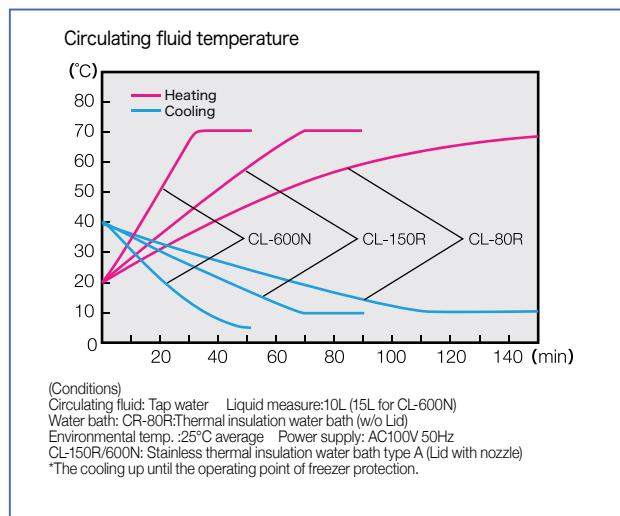
Appendix

CP/CL series Optional parts and Curved graphs etc.

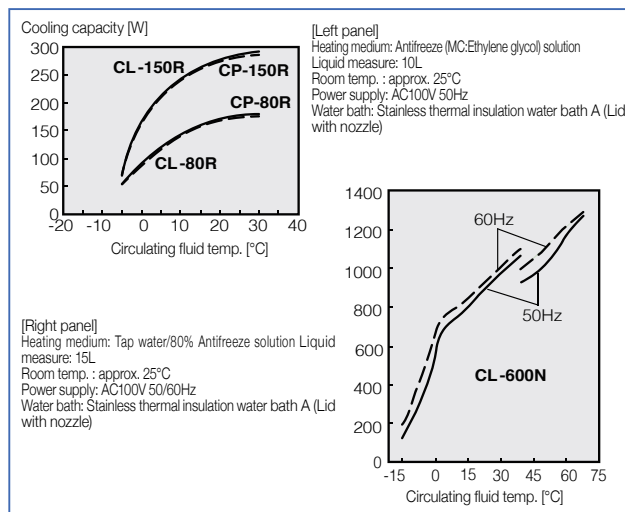
Cooling curve for CP-80R/150R



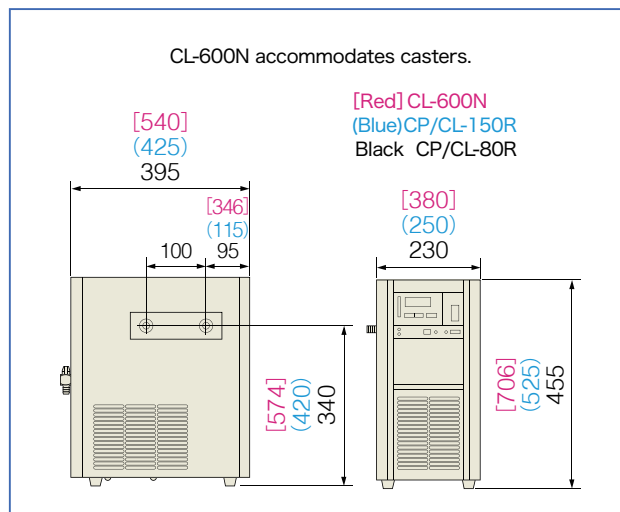
Heating / Cooling curve for CL-80R/150R/600N



Cooling capacity curve for CP/CL series



External dimensions for CP/CL series



Optional Accessories

Product Name / Model	Remarks
Port tank	For CP-80R/150R CL-80R/150R for open circuit
Stainless thermal insulation water bath type A φ13mm	Inner Dimension 300×400×200Hmm, With nozzle (ex.dia.φ13mm)
Stainless thermal insulation water bath type A φ22mm	Inner Dimension 300×400×200Hmm, With nozzle (ex.dia.φ22mm), CL-600N: Available Circulation to closed circuit machine.
PVC thermal insulation water bath type D φ13mm	Inner Dimension 164×294×150Hmm, With nozzle (ex.dia.φ13mm)
Spring net rack type B2	External dimensions 280×320×140Hmm
Spring net rack type C	External dimensions140×240×140Hmm
Caster	Set of 4, For CP-80R/150R CL-80R/150R
External temperature sensor for CL series SP-2504R	Outer diameter φ4×250Lmm, For CL series
Record out cable ROC-5	For CL series
Alarm out cable AOC-2	For CL series
Program setting unit PU-5	Can set apart when connecting via line and can be used for remote temperature control for CL series.
Heating medium for low temperature "Antifreeze Show Brine Blue"	Use when needed together with low temperature water bath unit or immersion cooler 20kg, 1 can, use when setting below +7 °C

•For detail about antifreeze medium, see p198.

Selection guide
 Constant temperature incubator shaker
 CO₂ incubator shaker
 Shaker
 Mixer
 Rotator
 Stirrer
 Bead beater
 homogenizer
 Ultrasonic homogenizer
 Aluminum block bath
 Minimize bath
 Water bath
 Shaking water bath
 Immersion cooler
 Hybridation oven
 Constant temperature chamber
 Centrifugal concentrator
 Cold trap
 Freeze dryer
 Electrophoresis and Blotting apparatus
 Constant temperature water circulating system [Chiller]

Appendix