

Coolnics Circulator (Freon-free Cooling Type)

CTA402(S)/802(S)/412(S)/812(S), CTW402(S)/802(S)/412(S)/812(S)



CTW402/CTA402, CTW402S/CTA402S

Cooling system
Air cooled type (CTA)/ Water cooled type (CTW)
Operating temp. range
0 deg.C to +70 deg.C(CTA)/ -10 deg.C to +70 deg.C(CTW)
Temp. adjusting accuracy
±0.1 deg.C
Max. pump flow
8 L/min (402(S)/412(S))/ 11 L/min (802(S)/812(S))

- Water cooling heat dissipation system (CTW type) and air cooling heat dissipation system (CTA type) are available.
- Integrated type (CTW402/802, CTA402/802) and Separated type (CTW402S/802S, CTA402S/802S) are selectable.
- External open constant temperature water circulator with separate cooling/heating assembly and power control assembly enables to control the constant temperature water precisely. It uses a Freon-free cooling system.
- The RS485 communication function is provided as standard and can be centrally managed from a PC.
- Suitable power supply ranges AC100V or 200V.

■ Specifications

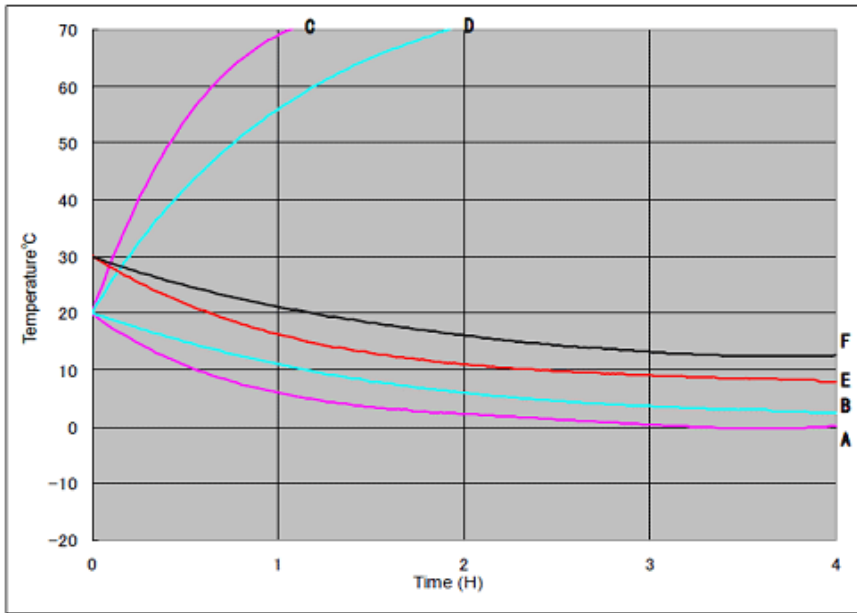
Product code	AC100V/AC200V	221635/221636	221637/221638	221631/221632	221633/221634
Model		CTA402/CTA412	CTA802/CTA812	CTW402/CTW412	CTW802/CTW812
System		Integrated type, Air cooled electronic system, External open circulation		Integrated type, Water cooled electronic system, External open circulation	
Product code	AC100V/AC200V	221643/221644	221645/221646	221639/221640	221641/221642
Model		CTA402S/CTA412S	CTA802S/CTA812S	CTW402S/CTW412S	CTW802S/CTW812S
System		Separated type, Air cooled electronic system, External open circulation		Separated type, Water cooled electronic system, External open circulation	
Performance					
Operating temperature range		0 deg.C to +70 deg.C		-10 deg.C to +70 deg.C	
Temp. adjustment accuracy		±0.1 deg.C *2			
Cooling capacity		83kcal/h (97W)	163kcal/h (189W)	126kcal/h (147W)	250kcal/h (291W)
Pump	Maximum flow	8 L/min	11 L/min	8 L/min	11 L/min
capacity	Max. discharge pressure	29.4 kPa	78.4 kPa	29.4 kPa	78.4 kPa
Configuration					
Temperature control		PID control with a micro computer, Digital setting and display			
Control sensor		Platinum resistance temperature detector (Pt100Ω)			
Timer function		1 min to 99 hrs 50 min, 100 to 9999 hrs (with time/clock switching function)			
Operation function		Fixed temp., Auto-start, Auto-stop, Quick auto stop, Program (Max.99 steps, step separate,repeat, gradient), Program auto start			
Other functions		Self diagnostics, Calibration offset, External temperature sensor switching, Power failure recovery mode, RS485 external communication, Alarm output terminal, Key lock, Display the amount of Power consumption, Operation guidance			
Safety unit		Over current electric leakage breaker, Abnormality detection (Temp. sensor, Overheat, Peltier, Temp. upper/lower limit, Power supply, Internal communication, Memory)			
Material of cooling/heating unit liquid contact part		Stainless steel (SUS304)			
Standards					
External size(mm)	Integrated type	W291×D380×H360	W371×D440×H380	W291×D380×H360	W331×D480×H380
	Separated type (-S)	W291×D380×H190	W361×D410×H265	W291×D360×H175	W311×D480×H202
		W291 x D342 x H195			
Weight	Integrated type	23 kg (total)	35 kg (total)	19 kg (total)	27 kg (total)
	Separated type (-S)	16 kg	27kg	12kg	19kg
		10 kg			
Circulation port nipple diameter		O.D.: 12.7mm			
Number of thermo module		4	8	4	8
Power supply	AC100V/AC200V	3.4A/1.7A	6.5A/3.3A	3.3A/1.7A	6A/3A
Accessories					
Circulation heat insulation hose (ID 11.5mm 1m X 2pcs.), Heat radiation water hose (ID12mm 3m X 1pc., CTW only), Stacking support (Separated type only)					

*1 Conditions: Temp. and Humidity 23 deg.C±/5 deg.C, 65%RH±/20% (no load)

*2 Condition: Testing Bath CTB-3A/6A (Optional)

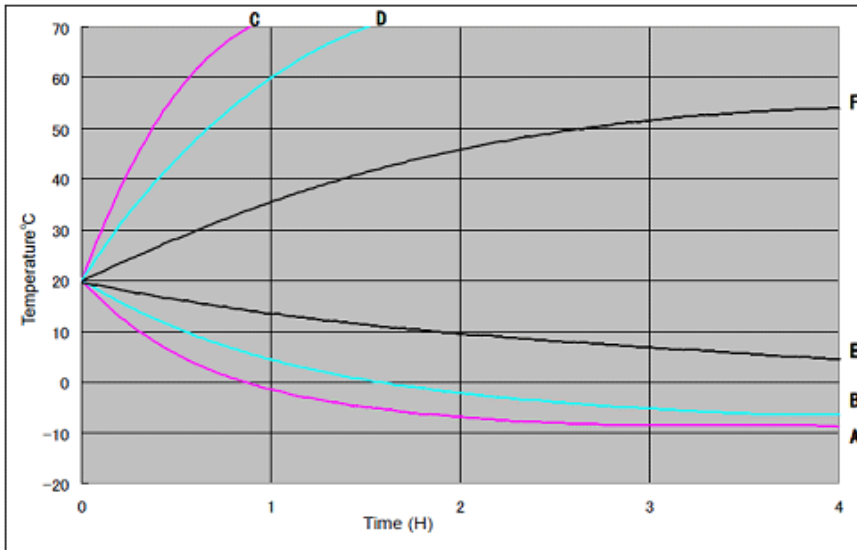
■ Heating-cooling characteristics

CTA402/CTA402S/CTA412/CTA412S



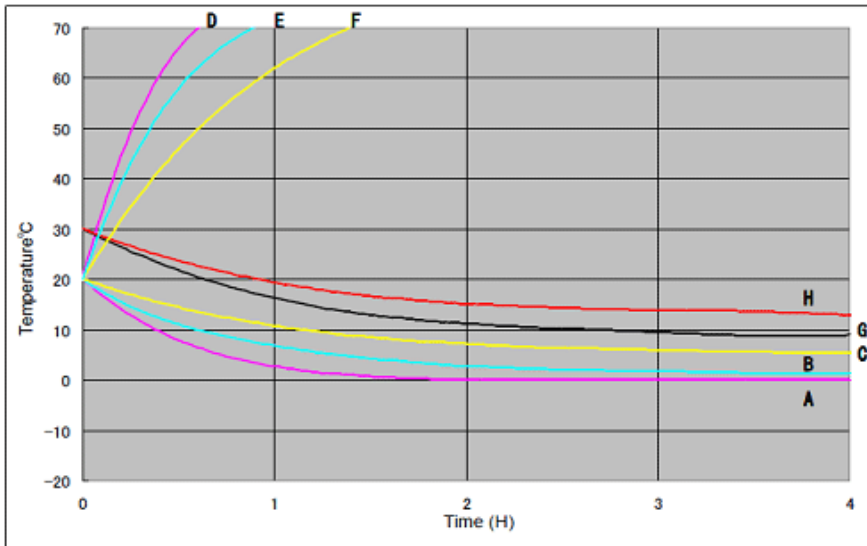
	A·C	B·D	E	F
Container	CTB-3A	CTB-6A	CTB-3A	CTB-6A
Liquid	Ethylene glycol + water (1:1)			
Liquid amount	3L	6L	3L	6L
Environmental temperature	20°C		30°C	

CTW402/CTW402S/CTW412/CTW412S



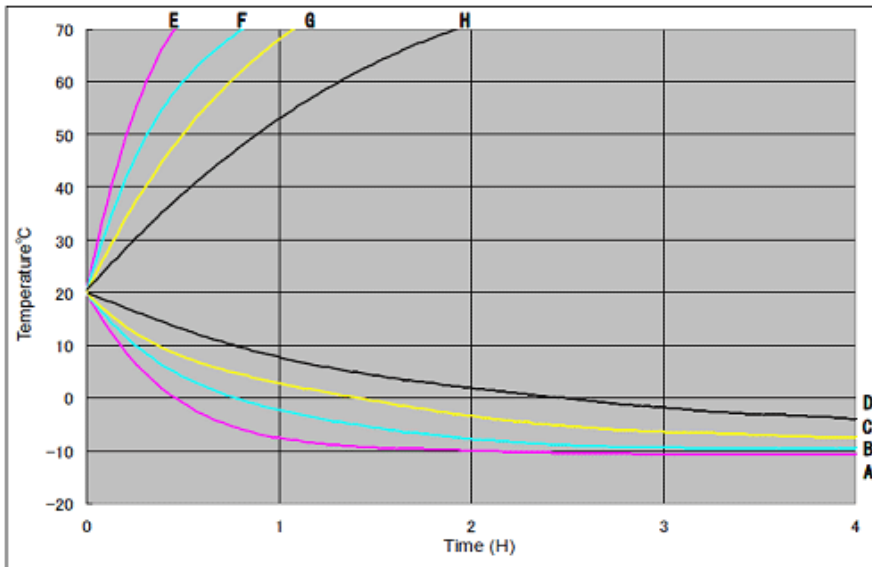
	A·C	B·D	E·F
Container	CTB-3A	CTB-6A	CTB-24A
Liquid	Ethylene glycol + water (1:1)		
Liquid amount	3L	6L	20L
Environmental temperature	20°C		
Temperature of the primary side of radiation water	20°C		
Radiation water amount	5L/min		

CTA802/CTA802S/CTA812/CTA812S



	A·D	B·E	C·F	G	H
Container	CTB-3A	CTB-6A	CTB-12A	CTB-6A	CTB-12A
Liquid	Ethylene glycol + water (1:1)				
Liquid amount	3L	6L	12L	6L	12L
Environmental temperature	20°C			30°C	

CTW802/CTW802S/CTW812/CT8412S



	A·E	B·F	C·G	D·H
Container	CTB-3A	CTB-6A	CTB-12A	CTB-24A
Liquid	Ethylene glycol + water (1:1)			
Liquid amount	3L	6L	12L	20L
Environmental temperature	20°C			
Temperature of the primary side of radiation water	20°C			
Radiation water amount	5L/min			

■ Optional items

Description	Option Model	Item Code
Sensor	-	221295
Testing bath, capacity : 3L	CTB-3A	221801
Testing bath, capacity : 6L	CTB-6A	221802
Testing bath, capacity : 12L	CTB-12A	221803
Testing bath, capacity : 12L	CTB-12S	221804
Testing bath, capacity : 24L	CTB-24A	221805



Sensor



Sensor