

## CORIO CD-1000F Refrigerated / heating circulator

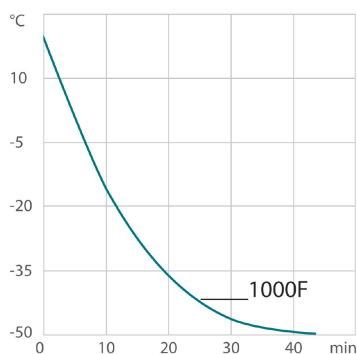
Refrigerated / heating circulators of the CORIO series distinguish themselves with a great price-to-performance ratio. They are ideal for all standard tasks and routine work in laboratories and industry.

### Product features

- Models for internal and external applications
- Bright, white, easy to read display
- Very quiet
- Easy pump change-over between internal and external circulation
- External pump connections
- USB connection
- Bath lid and drain tap included
- Removable ventilation grid
- Refrigeration unit without side vents
- Class III (FL) according to DIN 12876-1
- Space-saving cooling coil design yields more usable space in the bath tank

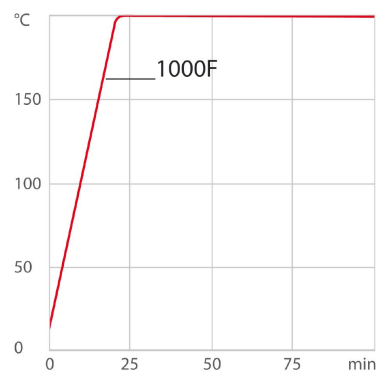


### Cool-down time



Medium: Ethanol

### Heat-up time



Medium: Thermal

### Performance values

230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F)

Heating capacity kW	2
Viscosity max. cSt	50
Pump capacity flow rate l/min	15
Pump capacity flow pressure bar	0.35
Power consumption A	14

Order No.	9012707.03						
Cooling capacity (Ethanol)							
°C	20	10	0	-10	-20	-30	-40
kW	1	1	0.98	0.75	0.53	0.27	0.13
* Performance specifications measured in accordance with DIN 12876. Cooling capacities up to 20 °C measured with ethanol; over 20 °C with thermal oil unless otherwise specified. Performance specifications apply at an ambient temperature of 20 °C. Performance values may differ with other bath fluids.							
Refrigerant stage 1							
Refrigerant	R449A						
Filling weight g	190						
Global Warming Potential for R449A	1397						
Carbon dioxide equivalent t	0.265						

## Technical data

<b>Available voltage versions</b>		<b>Bath</b>	
Order No.	9 012 707	Bath tank	Stainless steel
Available voltage versions:		Bath cover	integrated
9012707.13	230V/60Hz (Nema N6-20 Plug) (R449A)	Usable bath opening cm (W x L / D)	18 x 13 / 15
9012707.03.chn	230V/50Hz (CN Plug) (R449A)		
9012707.04	230V/50Hz (UK Plug Type BS1363A) (R449A)		
9012707.05	230V/50Hz (CH Plug Type SEV 1011) (R449A)		
9012707.02	115V/60Hz (Nema N5-20 Plug) (R449A)		
9012707.03	230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F) (R449A)		
9012707.12	200V/50-60Hz (Nema N6-20 Plug) (R449A)		
<b>Cooling</b>		<b>Other</b>	
Cooling of compressor	1-stage Air	Classification	Classification III (FL)
		IP Code	IP 21
		Pump function	Pressure Pump
		Pump type	Immersion Pump
<b>Electronics</b>		<b>Dimensions and volumes</b>	
Interfaces	USB	Weight kg	51.5
Temperature control	PID1	Barbed fittings inner diameter	8/12 mm
Absolute temperature calibration	1 Point Calibration	Dimensions cm (W x L x H)	42 x 49 x 74
Temperature display	LED	Filling volume l	5 ... 7.5
Temperature setting	Keypad	Pump connections	M16x1 male
<b>Temperature values</b>		<b>Included in delivery</b>	
Setting the resolution of the temperature display °C	0.1	2 Barbed fittings for tubing 8 and 12 mm ID. (Pump connections M16x1 male)	

Working temperature range °C	-40 ... +150
Temperature stability °C	±0.03
Ambient temperature °C	+5 ... +40
Temperature display resolution °C	0.01 ... 0.1

## All Benefits



**100% Checked.**  
100% testing. 100% quality. Each JULABO Circulator undergoes thorough quality testing before leaving the factory.



**ATC.**  
Absolute Temperature Calibration, 1-point calibration (CD).



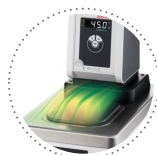
**Handle with ease.**  
Makes day-to-day work easy. Comfortably move your JULABO Circulator around by using the ergonomic handles (front and rear).



**Mobile.**  
Extra easy handling. Integrated castors for easy repositioning of refrigerated circulators.



**Space saving. Free up space.**  
Place your JULABO Circulator right next to an application, another unit, or wall. That saves space. This is made possible by eliminating vents and connections on the sides.



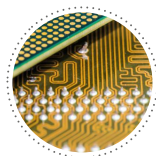
**Condensation protection.**  
Superb design solution. Integrated ventilation directs air over the bath lid and minimizes condensation.



**Green technology.**  
Development consistently applied environmentally friendly materials and technologies.



**Internal. External.**  
The pump is controlled via a lever located directly below the display. Easily change between internal and external circulation.



**Modern. Reliable.**  
High-grade components in every JULABO Circulator – platinum sensors, proven motor technology, CAN-Bus communication and much more.



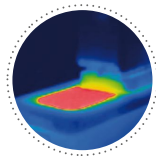
**Safety.**  
CORIO CD and CP comply with Class III (FL) according to DIN 12876-1 and switches off automatically in case of high temperature or low liquid level alarm.



**Satisfied customers.**  
11 subsidiaries and more than 100 partners worldwide guarantee fast and qualified JULABO support.



**Services 24/7.**  
Around the clock availability. You can find suitable accessories, data sheets, manuals, case studies, and more at [www.julabo.com](http://www.julabo.com).



**Solid.**  
Minimized energy loss through high-quality insulation.



**Stable.**  
Rubber feet allow for a secured footing of your CORIO to prevent damage to your laboratory equipment.



**Tidy.**  
The special drain tap for easy draining of bath fluids without tools.



**Touching permitted.**  
Optimum safety. The ergonomic plastic handle protects your fingers from hot surfaces.



**JULABO. Quality.**  
Highest standards of quality for a long product life.



**Quick start.**  
Individual JULABO consultation and comprehensive manuals at your disposal.



**Quick support**  
If an error occurs, the integrated Black-Box function permits fast diagnosis by the JULABO service team



**Timer. Integrated.**  
CORIO circulators include an integrated timer function. When the set time has elapsed, a signal sounds and the device switches off. Setting range: 0 ... 999 minutes.



**Brilliant.**  
Very bright display makes it easy to read even from a distance.



**Connection. Easy.**  
Inclined pump connections (M16×1) facilitate the connection of applications. Each unit includes 2 barbed fittings of 8/12 mm diameter each.



**Everything at the front.**  
All operating controls and safety functions are accessed easily and comfortably from the front.



**Exact.**  
You can rely on it. PID1 control and 'Active Cooling Control' make the new CORIO precise and perfect.



**Locked in.**  
The lockable power plug guarantees safe connection. More process safety.



**Switch on. And off you go.**  
Intelligent operating concept. Ready for operation with just a few quick and easy steps.



**Early warning system for low liquid level**  
Maximum safety for applications, optical and audible alarm, allows user to refill bath fluid before the unit shuts down



**Connectivity.**  
Remote control made easy. CORIO CD circulators feature a USB connection.