

## CORIO CP-600F Refrigerated – Heating Circulator

Refrigerated Circulators from the CORIO CP range are suitable for applications with a temperature range up to +200°C. The enhanced pump performance ensures they are suitable for easy temperature control tasks in combination with external applications.

### Your advantages

- 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
- Powerful and infinitely adjustable pressure pump
- USB connection
- RS232 interface for online communication
- Space-saving cooling coil design yields more usable space in the bath tank
- Bath lid and drain tap included
- Removable ventilation grid
- Refrigeration unit without side vents
- Class III (FL) according to DIN 12876-1



### Technical data

<b>Available voltage versions</b>		<b>Bath</b>	
Order No.	9 013 704	Bath tank	Stainless steel
Available voltage versions:		Bath cover	integrated
9 013 704.01	100V/50-60Hz (Nema N5-15 Plug)	Usable bath opening cm (W x L / D)	22 x 15 / 15
9 013 704.02	115V/60Hz (Nema N5-15 Plug)		
9 013 704.33	200-230V/50-60Hz (Schuko Plug - CEE 7/4 Plug Type F)		
9 013 704.04	200-230V/50-60Hz (UK Plug Type BS1363A)		
9 013 704.05	200-230V/50-60Hz (CH Plug Type SEV 1011)		
9 013 704.33.chn	200-230V/50-60Hz (Nema N5-15 Plug)		
<b>Cooling</b>		<b>Other</b>	
Cooling of compressor	1-stage Air	Classification	Classification III (FL)
		Pump function	Pressure Pump
		Pump type	Immersion Pump
<b>Electronics</b>		<b>Dimensions and volumes</b>	
Temperature control	PID1	Weight kg	35.7
Absolute temperature calibration	1 Point Calibration	Barbed fittings inner diameter	8/12 mm
Temperature display	LED	Dimensions cm (W x L x H)	33 x 47 x 69
Temperature setting	Keypad	Filling volume l	5 ... 7.5
Electronic Timer hr:min	0 ... 999	Pump connections	M16x1 male
<b>Temperature values</b>			
Working temperature range °C	-35 ... +200		
Temperature stability °C	±0.03		
Ambient temperature °C	+5.0 ... +40.0		
Temperature display resolution °C	0.01 ... 0.1		

**Performance values**

**100V/50-60Hz (Nema N5-15 Plug)**

100V/50Hz								100V/60Hz							
Heating capacity kW				0.8				Heating capacity kW				0.8			
Cooling capacity (Ethanol)								Cooling capacity (Ethanol)							
°C	200	20	10	0	-10	-20	-30	°C	200	20	10	0	-10	-20	-30
kW	0.6	0.6	0.54	0.5	0.33	0.19	0.07	kW	0.6	0.6	0.54	0.5	0.33	0.19	0.07
Viscosity max. cST				50				Viscosity max. cST				50			
Refrigerant				R452A				Refrigerant				R452A			
Filling volume g				150				Filling volume g				150			
Global Warming Potential for R452A				2140				Global Warming Potential for R452A				2140			
Carbon dioxide equivalent t				0.321				Carbon dioxide equivalent t				0.321			
Pump capacity flow rate l/min				8 ... 27				Pump capacity flow rate l/min				8 ... 27			
Pump capacity flow pressure bar				0.1 ... 0.7				Pump capacity flow pressure bar				0.1 ... 0.7			

**115V/60Hz (Nema N5-15 Plug)**

115V/60Hz							
Heating capacity kW				1			
Cooling capacity (Ethanol)							
°C	200	20	10	0	-10	-20	-30
kW	0.6	0.6	0.54	0.44	0.27	0.16	0.04
Viscosity max. cST				50			
Refrigerant				R449A			
Filling volume g				150			
Global Warming Potential for R449A				1397			
Carbon dioxide equivalent t				0.21			
Pump capacity flow rate l/min				8 ... 27			
Pump capacity flow pressure bar				0.1 ... 0.7			

**200-230V/50-60Hz (Schuko Plug - CEE 7/4 Plug Type F)**

200V/50Hz							200V/60Hz						
Heating capacity kW				1.8			Heating capacity kW				1.8		
Cooling capacity (Ethanol)							Cooling capacity (Ethanol)						
°C	200	20	0	-10	-20	-30	°C	200	20	0	-10	-20	-30
kW	0.6	0.6	0.44	0.27	0.16	0.04	kW	0.6	0.6	0.44	0.27	0.16	0.04
Viscosity max. cST				50			Viscosity max. cST				50		
Refrigerant				R449A			Refrigerant				R449A		
Filling volume g				150			Filling volume g				150		
Global Warming Potential for R449A				1397			Global Warming Potential for R449A				1397		
Carbon dioxide equivalent t				0.21			Carbon dioxide equivalent t				0.21		
Pump capacity flow rate l/min				8 ... 27			Pump capacity flow rate l/min				8 ... 27		
Pump capacity flow pressure bar				0.1 ... 0.7			Pump capacity flow pressure bar				0.1 ... 0.7		
230V/50Hz							230V/60Hz						

Heating capacity kW							2
Cooling capacity (Ethanol)							
°C	200	20	0	-10	-20	-30	
kW	0.6	0.6	0.44	0.27	0.16	0.04	
Viscosity max. cST							50
Refrigerant							R449A
Filling volume g							150
Global Warming Potential for R449A							1397
Carbon dioxide equivalent t							0.21
Pump capacity flow rate l/min							8 ... 27
Pump capacity flow pressure bar							0.1 ... 0.7

Heating capacity kW							2
Cooling capacity (Ethanol)							
°C	200	20	0	-10	-20	-30	
kW	0.6	0.6	0.44	0.27	0.16	0.04	
Viscosity max. cST							50
Refrigerant							R449A
Filling volume g							150
Global Warming Potential for R449A							1397
Carbon dioxide equivalent t							0.21
Pump capacity flow rate l/min							8 ... 27
Pump capacity flow pressure bar							0.1 ... 0.7

200-230V/50-60Hz (UK Plug Type BS1363A)

<b>200V/50Hz</b>							
Heating capacity kW							1.8
Cooling capacity (Ethanol)							
°C	200	20	0	-10	-20	-30	
kW	0.6	0.6	0.44	0.27	1.6	0.04	
Viscosity max. cST							50
Refrigerant							R449A
Filling volume g							150
Global Warming Potential for R449A							1397
Carbon dioxide equivalent t							0.21
Pump capacity flow rate l/min							8 ... 27
Pump capacity flow pressure bar							0.1 ... 0.7

<b>200V/60Hz</b>							
Heating capacity kW							1.8
Cooling capacity (Ethanol)							
°C	200	20	0	-10	-20	-30	
kW	0.6	0.6	0.44	0.27	0.16	0.04	
Viscosity max. cST							50
Refrigerant							R449A
Filling volume g							150
Global Warming Potential for R449A							1397
Carbon dioxide equivalent t							0.21
Pump capacity flow rate l/min							8 ... 27
Pump capacity flow pressure bar							0.1 ... 0.7

<b>230V/50Hz</b>							
Heating capacity kW							2
Cooling capacity (Ethanol)							
°C	200	20	0	-10	-20	-30	
kW	0.6	0.6	0.44	0.27	0.16	0.04	
Viscosity max. cST							50
Refrigerant							R449A
Filling volume g							150
Global Warming Potential for R449A							1397
Carbon dioxide equivalent t							0.21
Pump capacity flow rate l/min							8 ... 27
Pump capacity flow pressure bar							0.1 ... 0.7

<b>230V/60Hz</b>							
Heating capacity kW							2
Cooling capacity (Ethanol)							
°C	200	20	0	-10	-20	-30	
kW	0.6	0.6	0.44	0.27	0.16	0.04	
Viscosity max. cST							50
Refrigerant							R449A
Filling volume g							150
Global Warming Potential for R449A							1397
Carbon dioxide equivalent t							0.21
Pump capacity flow rate l/min							8 ... 27
Pump capacity flow pressure bar							0.1 ... 0.7

200-230V/50-60Hz (CH Plug Type SEV 1011)

<b>200V/50Hz</b>							
Heating capacity kW							1.8
Cooling capacity (Ethanol)							
°C	200	20	0	-10	-20	-30	
kW	0.6	0.6	0.44	0.27	0.16	0.04	
Viscosity max. cST							50

<b>200V/60Hz</b>							
Heating capacity kW							1.8
Cooling capacity							
°C	200	20	0	-10	-20	-30	
kW	0.6	0.6	0.44	0.27	0.16	0.04	
Viscosity max. cST							50

Refrigerant	R449A
Filling volume g	150
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.21
Pump capacity flow rate l/min	8 ... 27
Pump capacity flow pressure bar	0.1 ... 0.7

**230V/50Hz**

Heating capacity kW	2
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Cooling capacity						
°C	200	20	0	-10	-20	-30
kW	0.6	0.6	0.44	0.27	0.16	0.04

Viscosity max. cST	50
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Refrigerant	R449A
Filling volume g	150
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.21
Pump capacity flow rate l/min	8 ... 27
Pump capacity flow pressure bar	0.1 ... 0.7

Refrigerant	R449A
Filling volume g	150
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.21
Pump capacity flow rate l/min	8 ... 27
Pump capacity flow pressure bar	0.1 ... 0.7

**230V/60Hz**

Heating capacity kW	2
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Cooling capacity (Ethanol)						
°C	200	20	0	-10	-20	-30
kW	0.6	0.6	0.44	0.27	0.16	0.04

Viscosity max. cST	50
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Refrigerant	R449A
Filling volume g	150
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.21
Pump capacity flow rate l/min	8 ... 27
Pump capacity flow pressure bar	0.1 ... 0.7

**200-230V/50-60Hz (Nema N5-15 Plug)**

**200V/50Hz**

Heating capacity kW	1.8
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Cooling capacity (Ethanol)						
°C	200	20	0	-10	-20	-30
kW	0.6	0.6	0.44	0.27	0.16	0.04

Viscosity max. cST	50
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Refrigerant	R449A
Filling volume g	150
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.21
Pump capacity flow rate l/min	8 ... 27
Pump capacity flow pressure bar	0.1 ... 0.7

**200V/60Hz**

Heating capacity kW	1.8
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Cooling capacity (Ethanol)						
°C	200	20	0	-10	-20	-30
kW	0.6	0.6	0.44	0.27	0.16	0.04

Viscosity max. cST	50
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Refrigerant	R449A
Filling volume g	150
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.21
Pump capacity flow rate l/min	8 ... 27
Pump capacity flow pressure bar	0.1 ... 0.7

**230V/50Hz**

Heating capacity kW	1.8
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Cooling capacity (Ethanol)						
°C	200	20	0	-10	-20	-30
kW	0.6	0.6	0.44	0.27	1.6	0.04

Viscosity max. cST	50
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Refrigerant	R449A
Filling volume g	150
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.21
Pump capacity flow rate l/min	8 ... 27
Pump capacity flow pressure bar	0.1 ... 0.7

**230V/60Hz**

Heating capacity kW	2
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Cooling capacity (Ethanol)						
°C	200	20	0	-10	-20	-30
kW	0.6	0.6	0.44	0.27	0.16	0.04

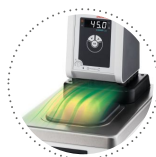
Viscosity max. cST	50
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Refrigerant	R449A
Filling volume g	150
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.21
Pump capacity flow rate l/min	8 ... 27
Pump capacity flow pressure bar	0.1 ... 0.7

All Benefits



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



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



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



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



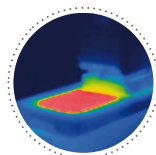
**Mobile.**  
Extra easy handling. Integrated castors for easy repositioning of refrigerated circulators.



**More bath.**  
Designed for more comfort. Thanks to the recessed cooling coil, the internal bath provides more space.



**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.



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



**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.



**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.



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



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



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



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



**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).



**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.



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



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



**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



**Powerful. Adjustable.**  
Strong pressure pump, continuously adjustable.



**Early warning system for low liquid level.**  
Maximum safety for your application. Optical and audible alarm allows user to refill bath fluid in time.



**Connectivity.**  
Remote control made easy. CORIO CP circulators feature a USB connection and RS232 interface.