

CF41 Cryo-Compact Circulator

The Cryo-Compact Circulators of the CF Series provide powerful cooling and heating capabilities in a space-saving, compact design. The instruments feature 2 kW heating capacity and classification III according to DIN 12876-1. The Cryo-Compact Circulators have pump connections for external temperature control applications and a bath opening for temperature control of small objects.



Your advantages

- Small overall dimensions for lowest space requirement
- Splash-proof keypad
- Bright VFD display and interactive LCD dialog display
- Highly precise ICC cascade temperature control
- RS232/RS485 interface for PC connection
- SMART PUMP, electronically adjustable pump stages
- Pt100 External sensor connection for measurement and control
- Integrated programmer for 6 x 60 program steps
- ATC3 3-Point-Calibration
- TCF Temperature Control Features
- Adjustable high temperature cut-out, visible via display
- Classification 3 according to DIN12876-1
- Pump connections for external temperature applications
- Bath opening for temperature control of small objects in the bath
- Front drain

Technical data

Available voltage versions		Bath	
Order No.	9 400 341	Bath tank	Stainless steel
Available voltage versions:		Bath cover	integrated
9 400 341.13	230V/60Hz (Nema N6-20 Plug)	Usable bath opening cm (W x L / D)	19 x 3 / 19
9 400 341.02	115V/60Hz (Nema N5-20 Plug)		
9 400 341.03	230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F)		
9 400 341.04	230V/50Hz (UK Plug Type BS1363A)		
Cooling		Other	
Cooling of compressor	1-stage Air	Classification	Classification III (FL)
		IP Code	IP 21
		Pump type	Immersion Pump
Electronics		Dimensions and volumes	
Digital interface	RS485	Weight kg	44
External pt100 sensor connection	integrated	Barbed fittings inner diameter	8/12 mm
Integrated programmer	6x60 steps	Dimensions cm (W x L x H)	28 x 46 x 46
Temperature control	ICC	Filling volume l	4 ... 5.5
Absolute temperature calibration	3 Point Calibration	Pump connections	M16x1 male
Temperature display	LCD		
Temperature values			
Temperature display resolution °C	0.01		

Performance values

230V/60Hz (Nema N6-20 Plug)

230V/60Hz				
Heating capacity kW	2			
Cooling capacity (Ethanol)				
°C	20	0	-20	-30
kW	0.47	0.4	0.28	0.12
Viscosity max. cST	70			
Refrigerant	R449A			
Filling volume g	153			
Global Warming Potential for R449A	1397			
Carbon dioxide equivalent t	0.214			
Pump capacity flow rate l/min	22 ... 26			
Pump capacity flow pressure bar	0.4 ... 0.7			
Maximum suction bar	0.2 ... 0.4			

115V/60Hz (Nema N5-20 Plug)

115V/60Hz				
Heating capacity kW	1			
Cooling capacity (Ethanol)				
°C	20	0	-20	-30
kW	0.47	0.4	0.28	0.12
Viscosity max. cST	70			
Refrigerant	R449A			
Filling volume g	153			
Global Warming Potential for R449A	1397			
Carbon dioxide equivalent t	0.214			
Pump capacity flow rate l/min	22 ... 26			
Pump capacity flow pressure bar	0.4 ... 0.7			
Maximum suction bar	0.2 ... 0.4			

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

230V/50Hz				
Heating capacity kW	2			
Cooling capacity (Ethanol)				
°C	20	0	-20	-30
kW	0.47	0.4	0.28	0.12
Viscosity max. cST	70			
Refrigerant	R452A			
Filling volume g	153			
Global Warming Potential for R452A	2140			
Carbon dioxide equivalent t	0.327			
Pump capacity flow rate l/min	22 ... 26			
Pump capacity flow pressure bar	0.4 ... 0.7			

Maximum suction bar	0.2 ... 0.4
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230V/50Hz (UK Plug Type BS1363A)

230V/50Hz	
Heating capacity kW	2
Cooling capacity (Ethanol)	
°C	20 0 -20 -30
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Global Warming Potential for R452A	2140
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Maximum suction bar	0.2 ... 0.4

Benefits



Early warning system for high/low temperature limits
Maximum safety for applications, optical and audible alarm, convertible to automated cut-off function



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



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



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



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



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



Services 24/7.
Around the clock availability. You can find suitable accessories, data sheets, manuals, case studies, and more at www.julabo.com.



Intelligent temperature control.
Intelligent cascade control - automatic and self-optimizing adaptation of the PID control parameters with external stability of +/- 0.05 °C.



For flammable bath fluid
Classification III (FL) according to DIN 12876-1



ATC3. Calibration.
'Absolute Temperature Calibration' for compensating a physically caused temperature difference, 3-point calibration.



Process. Under control.
Full regulation of the dynamics control, access to all important control parameters for individual process optimization.



100 % Cooling capacity
'Active Cooling Control' for cooling available throughout the entire working temperature range, fast cool-down even at higher temperatures



Energy saving cooling
Proportional cooling control for automatic adjustment of cooling power or temporary switch-off of compressor as needed to save up to 90 % energy in comparison to unregulated cooling machines