

# FL1701 Recirculating Coolers for installation below a lab bench

The compact FL models are suited for a wide variety of cooling tasks. Installation under a lab bench saves valuable space. 2 variants: Air-cooled (FL) and water-cooled (FLW).

## Your advantages

- · Ergonomic design and easy operation
- · Splash-proof keypad
- Large, bright LED display
- · Reliable Microprocessor PID temperature control
- · Powerful immersion pumps, suitable for continuous operation
- Permissible temperature in return line +80°C
- Easy filling and Drain tap easily accessible
- Low liquid level protection with optical and audible alarm signal
- · Integrated stainless steel bath tanks
- · Removable ventilation grid
- · Front drain
- No side vents, instruments can be placed right next to other equipment
- RS232 interface for PC connection
- IP class according to IEC 60529: 21
- · Alarm output, potential-free change-over contact (max. 30 VA)



## **Technical data**

Available volt	age versions		Bath		
Order No. 9 661 017			Bath tank	Stainless steel	
Available voltage versions:					
9 661 017.03	230V/50Hz (Schuko P Type F)	lug - CEE 7/4 Plug			
9 661 017.04	230V/50Hz (UK Plug T	ype BS1363A)			
9 661 017.02	115V/60Hz (Nema N5	-20 Plug)			
9 661 017.13	230V/60Hz (Schuko P Type F)	lug - CEE 7/4 Plug			
Cooling			Other		
Cooling of comp	ressor	1-stage Air	Sound pressure level dbA	62	
			Classification	Classification I (NFL)	
			IP Code	IP 21	
			Pump type	Centrifugal Pump	
Electronics			Dimensions and volumes		
Temperature cor	ntrol	PID1	Weight lbs	172	
Temperature dis	playTemperature display	LED	Barbed fittings inner diameter	8/12 mm	
Temperature set	tingTemperature setting	Keypad	Dimensions in. $(W \times L \times H)$	19.7 x 29.9 x 25.2	
			Filling volume I	12 17	
			Pump connections	M16x1 male	
Temperature values					
Setting the resolution of the temperature 0.1 display °C		0.1			
Return flow temperature max. °C 80					
Working temperature range °C -20 +40					
Temperature stability °C ±0.5					



Ambient temperature °C	5 40	
Temperature display resolution °C	0.1	

# Performance values

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

230V/50Hz							
Coolin	Cooling capacity (Water Glycol)						
°C	20	10	0	-10	-20		
kW	1.7	1.5	1.1	0.85	0.4		
Refrig	erant		R452A				
Filling	volum	e g	570				
Global	Warm	ing Po	2140				
Carbo	n dioxi	de equ	1.22				
Pump	capac	ity flov	23				
Pump	capac	ity flov	14.5				

# 230V/50Hz (UK Plug Type BS1363A)

230V/50Hz						
Cooling capacity (Water Glycol)						
°C	20	10	0	-10	-20	
kW 1.7 1.5 1.1 0.85 0.4						
Refrig	erant		R452A			
Filling volume g						570
Global Warming Potential for R452A						2140
Carbon dioxide equivalent t						1.22
Pump	capac	ity flov	23			
Pump	capac	ity flov	14.5			

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

115V/60Hz							
Coolin	Cooling capacity (Water Glycol)						
°C	20	10					
kW	1.7	1.4	1.1	8.0	0.35		
Refrig	Refrigerant R449A						
Filling volume g 560							
Global Warming Potential for R449A 1397							
Carbon dioxide equivalent t 0.782							
Pump capacity flow rate I/min 23							
Pump capacity flow pressure bar 14.5							

# 230V/60Hz (Schuko Plug - CEE 7/4 Plug Type F)

208V/60Hz	230V/60Hz
2001/00112	2001/ 001/2



## Cooling capacity

°C	20	10	0	-10	-20
kW	1.7	1.6	1.1	0.8	0.35

Refrigerant	R449A
Filling volume g	550
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.768
Pump capacity flow rate I/min	23
Pump capacity flow pressure bar	14.5

#### Cooling capacity

°C	20	10	0	-10	-20
kW	1.7	1.6	1.1	0.8	0.35

Refrigerant	R449A
Filling volume g	550
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.768
Pump capacity flow rate I/min	23
Pump capacity flow pressure bar	14.5

## **All Benefits**



## 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.



#### Precise

PID Temperature control with set control parameters, temperature stability  $\pm 0.02...\pm 0.2$  °C