

## FL4003 Powerful model in tower version

The FL models shown here have higher cooling capacity, powerful circulating pumps, and internal bath volumes of up to 30 liters. 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
- Precise PID temperature control
- Powerful immersion pumps, suitable for continuous operation
- Permissible temperature in return line +80°C
- Easy filling from the top with hinged protective lid
- 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)
- Pressure Indicator
- By-pass valve to adjust pump pressure

### Technical data

<b>Available voltage versions</b>		<b>Bath</b>	
Order No.	9 663 040	Bath tank	Stainless steel
Available voltage versions:			
9 663 040.16	230V/3PPE/60Hz (Without Plug)		
9 663 040.07	400V/3PNPE/50Hz (Plug 16A CEE)		
<b>Cooling</b>		<b>Other</b>	
Cooling of compressor	1-stage Air	Sound pressure level dbA	67
		Classification	Classification I (NFL)
		IP Code	IP 21
		Pump type	Immersion Pump
<b>Electronics</b>		<b>Dimensions and volumes</b>	
Temperature control	PID1	Weight lbs	326.3
Temperature display	LED	Barbed fittings inner diameter	¾"
Temperature setting	Keypad	Dimensions in. (W × L × H)	23.6 x 29.9 x 45.3
		Filling volume l	24 ... 30
		Pump connections	G¾" male
<b>Temperature values</b>			
Setting the resolution of the temperature 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
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### Performance values

#### 230V/3PPE/60Hz (Without Plug)

230V/3PPE/60Hz					
Cooling capacity (Water Glycol)					
°C	20	10	0	-10	-20
kW	4	3.4	2.4	1.5	0.6
Refrigerant	R449A				
Filling volume g	1800				
Global Warming Potential for R449A	1397				
Carbon dioxide equivalent t	2.515				
Pump capacity flow rate l/min	40				
Pump capacity flow pressure psi	7.3 ... 43.5				

#### 400V/3PNPE/50Hz (Plug 16A CEE)

400V/3PNPE/50Hz					
Cooling capacity (Water Glycol)					
°C	20	10	0	-10	-20
kW	4	3.4	2.4	1.5	0.65
Refrigerant	R452A				
Filling volume g	2220				
Global Warming Potential for R452A	2140				
Carbon dioxide equivalent t	4.751				
Pump capacity flow rate l/min	40				
Pump capacity flow pressure psi	7.3 ... 43.5				

### 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](http://www.julabo.com).



**Precise**

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