

FL1203 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 voltage versions		Bath	
Order No.	9 663 012	Bath tank	Stainless steel
Available voltage versions:			
9 663 012.03	230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F)		
9 663 012.04	230V/50Hz (UK Plug Type BS1363A)		
9 663 012.13	230V/60Hz (NEMA 6-20P)		
Cooling		Other	
Cooling of compressor	1-stage Air	Sound pressure level dbA	61
		Classification	Classification I (NFL)
		IP Code	IP 21
		Pump type	Centrifugal Pump
Electronics		Dimensions and volumes	
Temperature control	PID1	Weight lbs	200.6
Temperature display	LED	Barbed fittings inner diameter	3/4"
Temperature setting	Keypad	Dimensions in. (W x L x H)	19.7 x 29.9 x 25.2
		Filling volume l	12 ... 17
		Pump connections	G3/4" male
Temperature values			
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/50Hz (Schuko Plug - CEE 7/4 Plug Type F)

230V/50Hz

Cooling capacity (Water Glycol)

°C	20	10	0	-10	-20
kW	1.2	0.9	0.8	0.5	0.2

Refrigerant R452A

Filling volume g 690

Global Warming Potential for R452A 2140

Carbon dioxide equivalent t 1.477

Pump capacity flow rate l/min 40

Pump capacity flow pressure psi 7.3 ... 43.5

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Pump capacity flow pressure psi 7.3 ... 43.5

230V/60Hz (NEMA 6-20P)

230V/60Hz

Cooling capacity

°C	20	10	0	-10	-20
kW	1.2	1	0.9	0.6	0.2

Refrigerant R449A

Filling volume g 590

Global Warming Potential for R449A 1397

Carbon dioxide equivalent t 0.824

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.



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