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
- 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	
Order No.	9 663 012
Available voltage versions:	
9 663 012.03	
9 663 012.04	
9 663 012.13	

Bath	
Bath tank	Stainless steel

Cooling	
Cooling of compressor	1-stage Air

Other	
Sound pressure level dbA	61
Classification	Classification I (NFL)
IP Code	IP 21
Pump type	Centrifugal Pump

Electronics	
Temperature control	PID1
Temperature display	LED
Temperature setting	Keypad

Dimensions and volumes	
Weight kg	91
Barbed fittings inner diameter	¾"
Dimensions cm (W × L × H)	50 x 76 x 64
Filling volume l	12 ... 17
Pump connections	G¾" 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

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 bar	0.5 ... 3

230V/50Hz (UK Plug Type BS1363A)

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 bar	0.5 ... 3

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

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 bar	0.5 ... 3

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.

Precise
PID Temperature control with set control parameters, temperature stability ±0.02...±0.2 °C