FL1201 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).

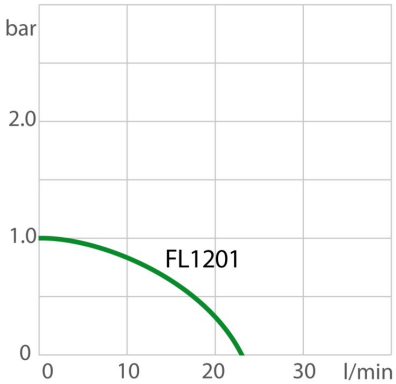
Optional heating function

On request, we also offer our FL recirculating chillers with an additional integrated heating function and other special solutions. Our product experts will be happy to advise you individually in order to design a temperature control unit that is exactly right for your needs. Just give us a call!

Product features

- 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)

Pump capacity



Medium: Water

Performance values

115V/60Hz (Nema N5-20P)	
Pump capacity flow pressure l/min	23
Circulation capacity pressure psi	14.5
Power consumption A	14

Order No.	9661012.02				
Cooling capacity (Ethanol)					
°C	20	10	0	-10	-20
kW [1]	1.2	1	0.9	0.6	0.3

Refrigerant stage 1	
Refrigerant	R449A
Filling weight g	585
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.817245

[1] Performance specifications measured in accordance with DIN 12876. Cooling capacities up to 20 °C measured with ethanol; over 20 °C with thermal oil unless otherwise specified. Performance specifications apply at an ambient temperature of 20 °C. Performance values may differ with other bath fluids.

230V/60Hz (Schuko Plug - CEE 7/4 Plug Type F)	
Pump capacity flow pressure l/min	23
Circulation capacity pressure psi	14.5
Power consumption A	6

Order No.	9661012.13				
Cooling capacity (Ethanol)					
°C	20	10	0	-10	-20
kW [2]	1.2	1	0.9	0.6	0.3

Refrigerant stage 1	
Refrigerant	R449A
Filling weight g	570
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.79629

[2] Performance specifications measured in accordance with DIN 12876. Cooling capacities up to 20 °C measured with ethanol; over 20 °C with thermal oil unless otherwise specified. Performance specifications apply at an ambient temperature of 20 °C. Performance values may differ with other bath fluids.

208V/60Hz (Schuko Plug - CEE 7/4 Plug Type F)	
Pump capacity flow pressure l/min	23
Circulation capacity pressure psi	14.5
Power consumption A	6

Order No.			9661012.13		
Cooling capacity (Ethanol)					
°C	20	10	0	-10	-20
kW [3]	1.2	1	0.9	0.6	0.3

Refrigerant stage 1	
Refrigerant	R449A
Filling weight g	570
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.79629

[3] Performance specifications measured in accordance with DIN 12876. Cooling capacities up to 20 °C measured with ethanol; over 20 °C with thermal oil unless otherwise specified. Performance specifications apply at an ambient temperature of 20 °C. Performance values may differ with other bath fluids.

Technical data

Available voltage versions

Order No.	9 661 012
Available voltage versions:	
9661012.02	115V/60Hz (Nema N5-20P) (R449A)
9661012.03	230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F) (R449A)
9661012.04	230V/50Hz (UK Plug Type BS1363A) (R449A)
9661012.05	230V/50Hz (CH Plug Type SEV 1011) (R449A)
9661012.13	230V/60Hz (Schuko Plug - CEE 7/4 Plug Type F) (R449A)

Cooling

Cooling of compressor	1-stage Air

Bath

Bath tank	Stainless steel

Other

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

Electronics

Interfaces	RS232
Temperature control	PID1
Temperature display	LED
Temperature setting	Keypad

Dimensions and volumes

Weight lbs	172
Barbed fittings inner diameter mm	8/12 mm
Dimensions in. (W × L × H)	19.7 x 29.9 x 25.2
Filling volume l	12 ... 17
Pump connections	M16x1 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

Included in delivery

2 Barbed fittings for tubing 8 and 12 mm ID. (Pump connections M16x1 male)

Temperature display resolution °C	0.1

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 ±0.02...±0.2 °C

Connection of additional equipment
Stakei connections for solenoid valve