

## FL11006 Powerful recirculating cooler

The powerful FL models are suitable for a wide range of cooling tasks in industrial environments, such as removal of large process heat. 2 variants: Air-cooled (FL) and water-cooled (FLW).

### Optional heating function

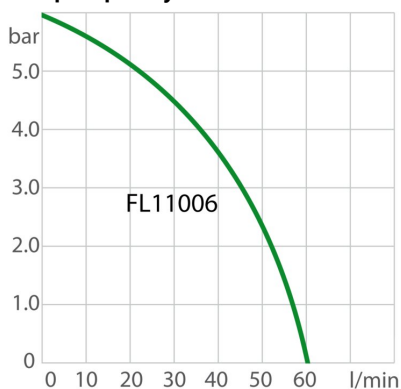
On request, we also offer our FL recirculating chillers with an additional integrated heating function and other special solutions. Our product experts will be happy to advise you individually in order to design a temperature control unit that is exactly right for your needs. Just give us a call!



### Product features

- Ergonomic design and easy operation
- Splash-proof keypad
- Large, bright LED display
- 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
- 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

### Pump capacity



### Performance values

400V/3PNPE/50Hz (Plug 32A CEE)

Pump capacity flow rate l/min 60

Pump capacity flow pressure bar 0.5 ... 6

Power consumption A 17

## Refrigerant variants

Order No.	9666110.07				
Cooling capacity (Ethanol)					
°C	20	10	0	-10	-20
kW <sup>1</sup>	11	9	7.5	5	1.7
Refrigerant stage 1					
Refrigerant	R452A				
Filling weight g	3100				
Global Warming Potential for R452A	2140				
Carbon dioxide equivalent t	6.634				

Order No.	9666110.S1.07				
Cooling capacity (Ethanol)					
°C	20	10	0	-10	-20
kW <sup>1</sup>	11	9	6	3.4	1.5
Refrigerant stage 1					
Refrigerant	R449A				
Filling weight g	3100				
Global Warming Potential for R449A	1397				
Carbon dioxide equivalent t	4.3307				

<sup>1</sup> 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.	9 666 110
Available voltage versions:	
9666110.16	230V/3PPE/60Hz (Without Plug) (R449A)
9666110.07	400V/3PNPE/50Hz (Plug 32A CEE) (R452A)
9666110.S1.07	400V/3PNPE/50Hz (Plug 32A CEE) (R449A)

### Cooling

Cooling of compressor	1-stage Air
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### Bath

Bath tank	Stainless steel
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### Other

Sound pressure level dbA	74
Classification	Classification I (NFL)
IP Code	IP 21
Pump type	Immersion Pump

### Electronics

Interfaces	Alarm output, RS232, Stakei
Temperature control	PID1

### Dimensions and volumes

Weight kg	248
Barbed fittings inner diameter mm	1"
Dimensions cm (W × L × H)	78 x 85 x 148

Temperature display	LED	Filling volume l	39 ... 47
Temperature setting	Keypad	Pump connections	G1¼" 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
Setting the resolution of the temperature display °C	0.1

**Included in delivery**  
 2 each barbed fittings for tubing 1" inner dia (pumpconnections G1 1/4" male).

### 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 ±0.02...±0.2 °C



**Connection of additional equipment**  
 Stakei connections for solenoid valve