



Advanced Test Equipment Corp.

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Julabo FL Series Datasheet

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FL300 Recirculating Coolers for installation below a lab bench

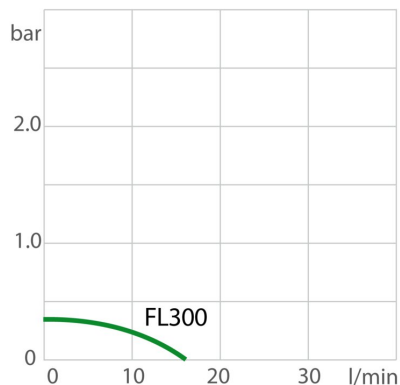
The compact FL models are suited for a wide variety of cooling tasks. Installation under a lab bench saves valuable space. 2 variants: Air-cooled (FL) and water-cooled (FLW).



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 N5-15 Plug)	
Pump capacity flow pressure l/min	15
Circulation capacity pressure psi	5.1
Power consumption A	6

Order No.	9660003.02				
Cooling capacity (Ethanol)					
°C	20	10	0	-10	-20
kW ¹	0.3	0.25	0.2	0.15	0.1
Refrigerant stage 1					
Refrigerant	R134a				
Filling weight g	155				
Global Warming Potential for R134a	1430				
Carbon dioxide equivalent t	0.22165				

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.

220V/60Hz (Schuko Plug - CEE 7/4 Plug Type F)

Pump capacity flow pressure l/min	15
Circulation capacity pressure psi	5.1
Power consumption A	3

Order No.	9660003.13				
Cooling capacity (Ethanol)					
°C	20	10	0	-10	-20
kW ²	0.3	0.25	0.2	0.15	0.1
Refrigerant stage 1					
Refrigerant	R134a				
Filling weight g	160				
Global Warming Potential for R134a	1430				
Carbon dioxide equivalent t	0.2288				

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.

Technical data

Available voltage versions		Cooling	
Order No.	9 660 003	Cooling of compressor	1-stage Air
Available voltage versions:			
9660003.01	100V/50-60Hz (Nema N5-15 Plug) (R134a)		
9660003.13	230V/60Hz (Schuko Plug - CEE 7/4 Plug Type F) (R134a)		
9660003.02	115V/60Hz (Nema N5-15 Plug) (R134a)		
9660003.03	230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F) (R134a)		
9660003.04	230V/50Hz (UK Plug Type BS1363A) (R134a)		
9660003.05	230V/50Hz (CH Plug Type SEV 1011) (R134a)		
Bath	Other		

Bath tank	Stainless steel	Sound pressure level dbA	55
		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	77.2
Barbed fittings inner diameter mm	8/12 mm
Dimensions in. (W × L × H)	9.8 x 19.7 x 23.6
Filling volume l	3 ... 4.5
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
Temperature display resolution °C	0.1

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

All Benefits



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



Connection of additional equipment
 Stakei connections for solenoid valve

Product data sheet

FL1201 Recirculating Coolers for installation below a lab bench

compact models with up to 1.7 kW of cooling capacity 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).

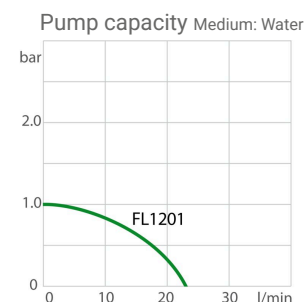
Optional heating function

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



Performance values

115V/60Hz (Nema N5-15 Plug)	
Heating capacity kW	
Viscosity max. cSt	
Pump capacity flow rate l/min	23
Pump capacity pressure psi	14.5
Power consumption A	14
Voltage Tolerance %	115V ±10

Order number including voltage version (115V/60Hz)	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.

Technical data

Available voltage versions	
Order No.	9661012
9661012.02	115V 60Hz (Nema N5-15 Plug) (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

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
Total dimensions in. (W x L x H)	19.7 x 29.9 x 25.2
Filling volume l	12 ... 17
Pump connections	M16x1 male

Temperature values

Working temperature range °C	-20 ... 40
Setting the resolution of the temperature display °C	0.1
Return flow temperature max. °C	80
Temperature stability °C	±0.5
Ambient temperature °C	+5 ... +40
Temperature display resolution °C	0.1

Other

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

Included in delivery

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

All Benefits



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Product data sheet

FL1701 Recirculating Coolers for installation below a lab bench

compact models with up to 1.7 kW of cooling capacity 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

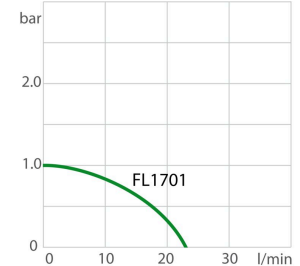
On request, we also offer our FL recirculating chillers with an additional integrated heating function and other special solutions. Our product experts will be happy to advise you individually in order to design a temperature control unit that is exactly right for your needs. Just give us a call!



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

Pump capacity Medium: Water



Performance values

115V/60Hz (Nema N5-20 Plug)

Heating capacity kW

Viscosity max. cSt

Pump capacity flow rate l/min

23

Pump capacity pressure psi

14.5

Power consumption A

15

Voltage Tolerance %

115V | ±10

Order number including voltage version (115V/60Hz) 9661017.02

Cooling capacity (Ethanol)

°C	20	10	0	-10	-20
kW ¹	1.7	1.4	1.1	0.8	0.35

Refrigerant stage 1

Refrigerant R449A

Filling weight g 560

Global Warming Potential for R449A 1397

Carbon dioxide equivalent t 0.78232

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.

Technical data

Available voltage versions

Order No.	9661017
9661017.03	230V 50Hz (Schuko Plug - CEE 7/4 Plug Type F) (R452A)
9661017.04	230V 50Hz (UK Plug Type BS1363A) (R452A)
9661017.02	115V 60Hz (Nema N5-20 Plug) (R449A)
9661017.13	230V 60Hz (Schuko Plug - CEE 7/4 Plug Type F) (R449A)

Cooling

Cooling of compressor 1-stage Air

Bath

Bath tank Stainless steel

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

Total dimensions in. (W × L × H) 19.7 x 29.9 x 25.2

Filling volume l 12 ... 17

Pump connections M16x1 male

Temperature values	
Working temperature range °C	-20 ... 40
Setting the resolution of the temperature display °C	0.1
Return flow temperature max. °C	80
Temperature stability °C	±0.5
Ambient temperature °C	+5 ... +40
Temperature display resolution °C	0.1

Other	
Classification	Classification I (NFL)
IP Code	IP 21
Pump type	Centrifugal Pump
Sound pressure level dB(A)	62

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

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Product data sheet

FL2506 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).



Optional heating function

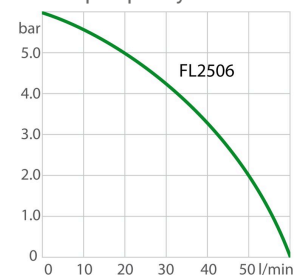
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Product Features

- ✓ 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

Pump capacity Medium: Water



Performance values

208V/60Hz (Nema N6-20 Plug)	
Heating capacity kW	
Viscosity max. cSt	
Pump capacity flow rate l/min	60
Pump capacity pressure psi	7.3 ... 87
Power consumption A	16
Voltage Tolerance %	208V ±10

Order number including voltage version (208V/60Hz)	9666025.13			
Cooling capacity 1 (Ethanol)				
°C	20	10	0	-10
kW ¹	2.5	1.9	1	0.3
Refrigerant stage 1				
Refrigerant	R449A			
Filling weight g	1400			
Global Warming Potential for R449A	1397			
Carbon dioxide equivalent t	1.9558			

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.

Technical data

Available voltage versions	
Order No.	9666025
9666025.13	230V 60Hz (Nema N6-20 Plug) (R449A)
9666025.03	230V 50Hz (Schuko Plug - CEE 7/4 Plug Type F) (R452A)

Cooling	
Cooling of compressor	1-stage Air

Bath	
Bath tank	Stainless steel

Electronics	
Interfaces	Alarm output, RS232, Stakei
Temperature control	PID1
Temperature display	LED
Temperature setting	Keypad

Dimensions and volumes	
Weight lbs	348.3
Barbed fittings inner diameter mm	1"
Total dimensions in. (W x L x H)	23.6 x 29.9 x 45.3
Filling volume l	24 ... 30
Pump connections	G1¼" male

Temperature values	
Working temperature range °C	-15 ... 40
Setting the resolution of the temperature display °C	0.1
Return flow temperature max. °C	80
Temperature stability °C	±0.5
Ambient temperature °C	+5 ... +40
Temperature display resolution °C	0.1

Other	
Classification	Classification I (NFL)
IP Code	IP 21
Pump type	Immersion Pump
Sound pressure level dB(A)	64

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

All Benefits



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Product data sheet

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).

Optional heating function

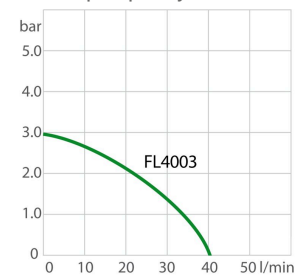
On request, we also offer our FL recirculating chillers with an additional integrated heating function and other special solutions. Our product experts will be happy to advise you individually in order to design a temperature control unit that is exactly right for your needs. Just give us a call!



Product Features

- ✓ Ergonomic design and easy operation
- ✓ Splash-proof keypad
- ✓ Large, bright LED display
- ✓ Reliable Microprocessor PID temperature control
- ✓ 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

Pump capacity Medium: Water



Performance values

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

Heating capacity kW

Viscosity max. cSt

Pump capacity flow rate l/min

40

Pump capacity pressure psi

7.3 ... 43.5

Power consumption A

11

Voltage Tolerance %

230V | ±10

Order number including voltage version (230V/3PPE/60Hz)	9663040.16				
Cooling capacity (Ethanol)					
°C	20	10	0	-10	-20
kW ¹	4	3.4	2.4	1.5	0.6
Refrigerant stage 1					
Refrigerant	R449A				
Filling weight g	1800				
Global Warming Potential for R449A	1397				
Carbon dioxide equivalent t	2.5146				

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.

Technical data

Available voltage versions	
Order No.	9663040
9663040.16	230V 3PPE 60Hz (Without Plug) (R449A)
9663040.7	400V 3PNPE 50Hz (Plug 16A CEE) (R452A)

Cooling	
Cooling of compressor	1-stage Air

Bath	
Bath tank	Stainless steel

Electronics	
Interfaces	Alarm output, RS232, Stakei
Temperature control	PID1
Temperature display	LED
Temperature setting	Keypad

Dimensions and volumes	
Weight lbs	326.3
Barbed fittings inner diameter mm	¾"
Total dimensions in. (W × L × H)	23.6 x 29.9 x 45.3
Filling volume l	24 ... 30
Pump connections	G¾" male

Temperature values	
Working temperature range °C	-20 ... 40
Setting the resolution of the temperature display °C	0.1
Return flow temperature max. °C	80
Temperature stability °C	±0.5
Ambient temperature °C	+5 ... +40
Temperature display resolution °C	0.1

Other	
Classification	Classification I (NFL)
IP Code	IP 21
Pump type	Immersion Pump
Sound pressure level dB(A)	67

All Benefits



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Product data sheet

FL4006 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).

Optional heating function

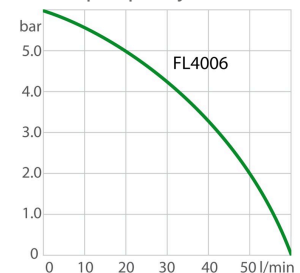
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Product Features

- ✓ 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

Pump capacity Medium: Water



Performance values

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

Heating capacity kW

Viscosity max. cSt

Pump capacity flow rate l/min

60

Pump capacity pressure psi

7.3 ... 87

Power consumption A

16

Voltage Tolerance %

230V | ±10

Order number including voltage version (230V/3PPE/60Hz)		9666040.16			
Cooling capacity (Ethanol)					
°C	20	10	0	-10	-20
kW ¹	4	2.9	1.9	0.9	0.05
Refrigerant stage 1					
Refrigerant			R449A		
Filling weight g			1800		
Global Warming Potential for R449A			1397		
Carbon dioxide equivalent t			2.5146		
<small>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.</small>					

Technical data

Available voltage versions	
Order No.	9666040
9666040.16	230V 3PPE 60Hz (Without Plug) (R449A)
9666040.7	400V 3PNPE 50Hz (Plug 16A CEE) (R452A)

Cooling	
Cooling of compressor	1-stage Air

Bath	
Bath tank	Stainless steel

Electronics	
Interfaces	Alarm output, RS232, Stakei
Temperature control	PID1
Temperature display	LED
Temperature setting	Keypad

Dimensions and volumes	
Weight lbs	346.1
Barbed fittings inner diameter mm	1"
Total dimensions in. (W × L × H)	23.6 x 29.9 x 45.3
Filling volume l	24 ... 30
Pump connections	G1¼" male

Temperature values	
Working temperature range °C	-20 ... 40
Setting the resolution of the temperature display °C	0.1
Return flow temperature max. °C	80
Temperature stability °C	±0.5
Ambient temperature °C	+5 ... +40
Temperature display resolution °C	0.1

Other	
Classification	Classification I (NFL)
IP Code	IP 21
Pump type	Immersion Pump
Sound pressure level dB(A)	67

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

All Benefits



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Product data sheet

FL7006 Powerful recirculating cooler

Models with particularly high power reserves

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).

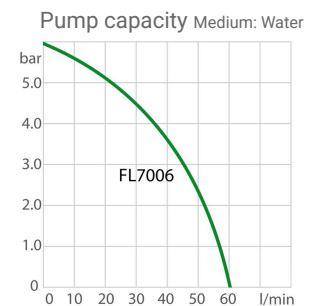
Optional heating function

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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



Performance values

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

Heating capacity kW

Viscosity max. cSt

Pump capacity flow rate l/min

60

Pump capacity pressure psi

7.3 ... 87

Power consumption A

23

Voltage Tolerance %

230V | ±10

Order number including voltage version (230V/3PPE/60Hz) 9666070.16

Cooling capacity (Ethanol)

°C	20	10	0	-10	-20
kW ¹	7	6.4	5.1	3	1.45

Refrigerant stage 1

Refrigerant R449A

Filling weight g 3000

Global Warming Potential for R449A 1397

Carbon dioxide equivalent t 4.191

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.

Technical data

Available voltage versions

Order No.	9666070
9666070.16	230V 3PPE 60Hz (Without Plug) (R449A)
9666070.07	400V 3PNPE 50Hz (Plug 16A CEE) (R452A)
9666070.S1.07	400V 3PNPE 50Hz (Plug 16A CEE) (R449A)

Cooling

Cooling of compressor 1-stage Air

Bath

Bath tank Stainless steel

Electronics

Interfaces	Alarm output, RS232, Stakei
Temperature control	PID1
Temperature display	LED
Temperature setting	Keypad

Dimensions and volumes

Weight lbs	555.6
Barbed fittings inner diameter mm	1"
Total dimensions in. (W × L × H)	30.7 x 33.5 x 58.3
Filling volume l	39 ... 47
Pump connections	G1¼" male

Temperature values

Working temperature range °C	-20 ... 40
Setting the resolution of the temperature display °C	0.1
Return flow temperature max. °C	80
Temperature stability °C	±0.5
Ambient temperature °C	+5 ... +40
Temperature display resolution °C	0.1

Other

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

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.

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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.

Product data sheet

FL11006 Powerful recirculating cooler

Models with particularly high power reserves

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).

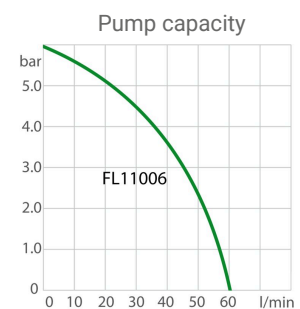
Optional heating function

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



Performance values

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

Heating capacity kW

Viscosity max. cSt

Pump capacity flow rate l/min

60

Pump capacity pressure psi

7.3 ... 87

Power consumption A

27

Voltage Tolerance %

230V | ±10

Order number including voltage version (230V/3PPE/60Hz) 9666110.16

Cooling capacity (Ethanol)

°C	20	10	0	-10	-20
kW ¹	10.3	9	7.5	5	1.5

Refrigerant stage 1

Refrigerant R449A

Filling weight g 3000

Global Warming Potential for R449A 1397

Carbon dioxide equivalent t 4.191

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.

Technical data

Available voltage versions

Order No.	9666110
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

Bath

Bath tank Stainless steel

Electronics

Interfaces	Alarm output, RS232, Stakei
Temperature control	PID1
Temperature display	LED
Temperature setting	Keypad

Dimensions and volumes

Weight lbs	546.7
Barbed fittings inner diameter mm	1"
Total dimensions in. (W × L × H)	30.7 x 33.5 x 58.3
Filling volume l	39 ... 47
Pump connections	G1¼" male

Temperature values

Working temperature range °C	-20 ... 40
Setting the resolution of the temperature display °C	0.1
Return flow temperature max. °C	80
Temperature stability °C	±0.5
Ambient temperature °C	+5 ... +40
Temperature display resolution °C	0.1

Other

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

Included in delivery

2 each barbed fittings for tubing 1" inner dia (pumpconnections G1 1/4" male)

All Benefits



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Product data sheet

FL20006 Powerful recirculating cooler

Models with particularly high power reserves

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).

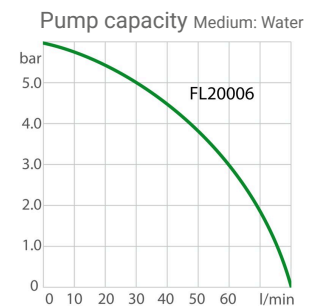
Optional heating function

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



Performance values

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

Heating capacity kW

Viscosity max. cSt

Pump capacity flow rate l/min

80

Pump capacity pressure psi

11.6 ... 87

Power consumption A

38

Voltage Tolerance %

230V | ±10

Order number including voltage version (230V/3PPE/60Hz) 9666200.16

Cooling capacity (Ethanol)

°C	20	10	0	-10	-20
kW ¹	20	15	10	7	3

Refrigerant stage 1

Refrigerant R449A

Filling weight g 5500

Global Warming Potential for R449A 1397

Carbon dioxide equivalent t 7.6835

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.

Technical data

Available voltage versions

Order No.	9666200
9666200.16	230V 3PPE 60Hz (Without Plug) (R449A)
9666200.07	400V 3PNPE 50Hz (Plug 32A CEE) (R452A)

Cooling

Cooling of compressor 1-stage Air

Bath

Bath tank Stainless steel

Electronics

Interfaces Alarm output, RS232, Stakei

Temperature control PID1

Temperature display LED

Temperature setting Keypad

Dimensions and volumes

Weight lbs 826.7

Barbed fittings inner diameter mm 1"

Total dimensions in. (W × L × H) 37.4 x 45.3 x 63.4

Filling volume l 15 ... 37

Pump connections G1¼" male

Temperature values

Working temperature range °C	-25 ... 40
Setting the resolution of the temperature display °C	0.1
Return flow temperature max. °C	80
Temperature stability °C	±0.5
Ambient temperature °C	+5 ... +40
Temperature display resolution °C	0.1

Other

Classification	Classification I (NFL)
IP Code	IP 21
Pump type	Centrifugal Pump
Sound pressure level dB(A)	73

Included in delivery

2 each barbed fittings for tubing 1" inner dia (pumpconnections G1 1/4" male)

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