



**TempLab**  
Laboratory Instruments

**Julabo**  
THE TEMPERATURE CONTROL COMPANY

# PRODUCT PORTFOLIO

JULABO Products from -95 °C ... +400 °C



ENGLISH

Superior  
**TEMPERATURE**  
TECHNOLOGY for a  
better **Life**



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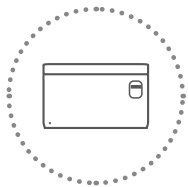
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# THE RIGHT PRODUCT FOR EVERY APPLI



## REFRIGERATED AND HEATING CIRCULATORS CORIO, DYNEO, MAGIO

Refrigerated and heating circulators made by JULABO are used worldwide. Whether in research, material testing or technical systems, users in industries worldwide rely on the tried and tested technology. Focused on your requirements, JULABO circulators have set the benchmark for temperature control technology for decades. The JULABO range of circulators offers the functional solution for your day-to-day work, whether routine tasks or highest requirements: CORIO, DYNEO and MAGIO – three model series for every requirement and every budget.



## HIGHLY DYNAMIC TEMPERATURE CONTROL SYSTEMS PRESTO, FORTE HT

Highly dynamic temperature control systems solve even difficult temperature control tasks within no time. With their extremely short heat-up and cool-down times, a wide range of working temperatures without changing the bath fluid, and high output data, they are ideal for compensating temperature differences in external applications extremely quickly. Unlike conventional circulators, the bath fluid can be used in an extended temperature range and for a significantly longer time.



## RECIRCULATING COOLERS AND CHILLERS F, FL, FC Series, SemiChiller

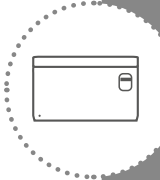
JULABO recirculating coolers can handle virtually any cooling requirements in laboratories or industrial environments. Their efficiency makes them an environmentally-friendly and economical alternative to cooling with tap water. Compact models from JULABO are ideal for placement on or underneath a lab bench. JULABO offers several powerful models with up to 20 kW of cooling capacity for applications in industrial environments.





# CATION

## WATER BATHS AND SHAKING WATER BATHS PURA, SW



JULABO offers water baths and shaking water baths for routine applications, such as temperature applications for samples, incubation, material testing, corrosion tests, as well as temperature control applications of cultivations or temperature tests for food and beverages. All models are durable and of high quality. Their working temperature ranges from +18 °C to +99.9 °C qualify them for a wide range of applications.

## INSTRUMENTS FOR SPECIAL REQUIREMENTS

Calibration baths, forcing test circulators, immersion coolers, flow-through coolers, laboratory temperature controllers, wireless communication & software



With a temperature stability of  $\pm 0.005$  °C, calibration baths are suited for the calibration of measuring instruments, thermometers etc. The forcing test circulator specializes in determining the shelf life of beer. Immersion and flow-through coolers are the ideal add-on for quick cool-down of heating circulators and water baths. Temperature controllers are used for measuring, controlling, and monitoring electrically-heated equipment in laboratories.



# REFRIGERATED CIRCULATORS

## CORIO

The CORIO series is the gateway to professional temperature control, with future-oriented technology that makes high demands on accuracy, economy, and handling. The CORIO program offers different models for daily work and routine tasks in the lab.



Product brochure  
online at  
[www.julabo.com](http://www.julabo.com)

### Powerful.

- For internal and/or external applications
- Models for working temperatures from -50 °C to +200 °C
- Very quiet operation
- All models feature user-friendly, intuitive operation
- Bright displays, easy to read even from a distance
- State-of-the-art control technology for quick results and precision
- USB interface
- RS232 (CORIO CP)
- Refrigeration units without side vents
- Built-in drain tap for easy and safe drainage
- Optimized cooling coil design provides more space in the bath

## CORIO™

### Maintenance. Friendly.

The magnetic front grid can be removed easily for user-friendly cleaning and maintenance. No tools are needed.





### Saves energy.

JULABO refrigerated circulators use various energy-efficient components and technologies to minimize both power consumption and waste heat in the laboratory.

### CORIO refrigerated circulators – technical data

The refrigerated circulators of the CORIO series provide a heating capacity of 2 kW as well as a temperature stability of  $\pm 0.03$  °C.

Model	Order No.	Working temperature range °C	Cooling capacity (kW) at bath temperature in °C			Pump		Bath opening/ bath depth W x L / D cm	Filling volume liters	Dimensions W x D x H cm
			+20	0	-20	Pressure bar	Flow rate l/min			
CD-200F	9 012 701.N1	-20 ... +150	0.22	0.17	0.06	0.35	15	13x15/15	3 ... 4	23x39x65
CP-200F	9 013 701.N1	-20 ... +200	0.2	0.15	0.02	0.1 ... 0.7	8 ... 27	13x15/15	3 ... 4	23x39x65
CD-201F	9 012 702	-20 ... +150	0.22	0.16	0.06	0.35	15	13x15/15	3 ... 4	44x41x44
CP-201F	9 013 702	-20 ... +200	0.2	0.15	0.02	0.1 ... 0.7	8 ... 27	13x15/15	3 ... 4	44x41x44
CD-300F	9 012 703	-25 ... +150	0.31	0.28	0.11	0.35	15	13x15/15	3 ... 4	24x42x66
CP-300F	9 013 703	-25 ... +200	0.3	0.27	0.08	0.1 ... 0.7	8 ... 27	13x15/15	3 ... 4	24x42x66
CD-310F	9 012 713.N1	-30 ... +150	0.31	0.28	0.13	0.35	15	13x15/15	3 ... 4	23x40x65
CP-310F	9 013 713.N1	-30 ... +200	0.3	0.27	0.12	0.1 ... 0.7	8 ... 27	13x15/15	3 ... 4	23x40x65
CD-450F	9 012 714.N1	-30 ... +150	0.45	0.38	0.17	0.35	15	13x15/15	3 ... 4	23x40x65
CP-450F	9 013 714.N1	-30 ... +200	0.44	0.37	0.16	0.1 ... 0.7	8 ... 27	13x15/15	3 ... 4	23x40x65
CD-449F	9 012 716.N1	-32 ... +150	0.45	0.36	0.21	0.35	15	28x35/20	20 ... 26	37x59x69
CP-449F	9 013 716.N1	-32 ... +200	0.44	0.35	0.2	0.1 ... 0.7	8 ... 27	28x35/20	20 ... 26	37x59x69
CD-600F	9 012 704	-35 ... +150	0.6	0.46	0.18	0.35	15	22x15/15	5 ... 7.5	33x47x69
CP-600F	9 013 704	-35 ... +200	0.6	0.44	0.16	0.1 ... 0.7	8 ... 27	22x15/15	5 ... 7.5	33x47x69
CD-601F	9 012 705	-35 ... +150	0.6	0.46	0.18	0.35	15	22x15/20	8 ... 10	33x47x74
CP-601F	9 013 705	-35 ... +200	0.6	0.44	0.16	0.1 ... 0.7	8 ... 27	22x15/20	8 ... 10	33x47x74
CD-800F	9 012 715.N1	-40 ... +150	0.85	0.75	0.4	0.35	15	18x13/15	5 ... 7.5	33x47x70
CP-800F	9 013 715.N1	-40 ... +200	0.84	0.74	0.39	0.1 ... 0.7	8 ... 27	18x13/15	5 ... 7.5	33x47x70
CD-1000F	9 012 707	-40 ... +150	1	0.98	0.53	0.35	15	18x13/15	5 ... 7.5	42x49x74
CP-1000F	9 013 707	-50 ... +200	1	0.96	0.51	0.1 ... 0.7	8 ... 27	18x13/15	5 ... 7.5	42x49x74
CD-1001F	9 012 708	-38 ... +100	1	0.9	0.35	0.35	15	35x41/30	42 ... 56	45x64x95
CP-1001F	9 013 708	-38 ... +100	1	0.9	0.32	0.1 ... 0.7	8 ... 27	35x41/30	42 ... 56	45x64x95
CD-1200F	9 012 717.N1	-40 ... +150	1.25	1.1	0.63	0.35	15	18x13/15	5 ... 7.5	33x47x70
CP-1200F	9 013 717.N1	-50 ... +200	1.24	1.09	0.62	0.1 ... 0.7	8 ... 27	18x13/15	5 ... 7.5	33x47x70
CD-1200FW	9 012 728.N1	-40 ... +150	1.25	1.1	0.63	0.35	15	18x13/15	5 ... 7.5	33x47x70
CP-1200FW	9 013 728.N1	-50 ... +200	1.24	1.09	0.62	0.1 ... 0.7	8 ... 27	18x13/15	5 ... 7.5	33x47x70
CD-1201F	9 012 718.N1	-40 ... +100	1.25	1.1	0.63	0.35	15	35x41/30	48 ... 56	45x64x95
CP-1201F	9 013 718.N1	-40 ... +100	1.25	1.1	0.63	0.1 ... 0.7	8 ... 27	35x41/30	48 ... 56	45x64x95

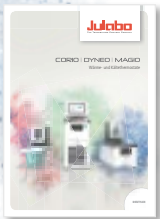




# REFRIGERATED CIRCULATORS

## DYNEO

The DYNEO circulator range focuses on your needs and offers innovative temperature control technology as well as functional solutions for demanding internal and external temperature applications.



Product brochure  
online at  
[www.julabo.com](http://www.julabo.com)

### Powerful.

- For internal and/or external applications
- Models for working temperatures from -50 °C to +200 °C
- Models suitable for internal and external applications
- Continuously adjustable, powerful pressure pump
- Flow rate 27 l/min, supply pressure 0.7 bar
- Easy switch between internal and external circulation
- Large color TFT display, multi-lingual user interface
- Ease of use via central rotary knob
- Integrated programmer
- External Pt100 sensor connection
- USB interface
- RS232 interface or analog interfaces (optional)
- Built-in drain tap for easy and safe drainage



# DYNEO™



## DYNEO. Intelligent, simple control.

The rotary knob of the DYNEO series provides for simple, modern control options. The entire menu, all functions and settings are controlled directly via the central rotary knob on the front of the circulator.



## DYNEO refrigerated circulators – technical data

The refrigerated circulators of the DYNEO series provide a heating capacity of 2 kW as well as a temperature stability of  $\pm 0.01$  °C.

Model	Order No.	Working temperature range °C	Cooling capacity (kW) at bath temperature in °C			Pump		Usable bath opening W x L / D cm	Filling volume liters	Dimensions W x L x H cm
			+20	0	-20	Pressure bar	Flow rate l/min			
DD-200F	9 021 701.N1	-20 ... +200	0.2	0.15	0.02	0.1 ... 0.7	8 ... 27	13 x 15 / 15	3 ... 4	23 x 39 x 65
DD-201F	9 021 702	-20 ... +200	0.2	0.15	0.02	0.1 ... 0.7	8 ... 27	13 x 15 / 15	3 ... 4	44 x 41 x 44
DD-300F	9 021 703	-25 ... +200	0.3	0.27	0.08	0.1 ... 0.7	8 ... 27	13 x 15 / 15	3 ... 4	24 x 42 x 66
DD-310F	9 021 713.N1	-30 ... +200	0.3	0.27	0.12	0.1 ... 0.7	8 ... 27	13 x 15 / 15	3 ... 4	23 x 40 x 65
DD-450F	9 021 714.N1	-30 ... +200	0.44	0.37	0.16	0.1 ... 0.7	8 ... 27	13 x 15 / 15	3 ... 4	23 x 40 x 65
DD-449F	9 021 716.N1	-32 ... +200	0.44	0.35	0.2	0.1 ... 0.7	8 ... 27	28 x 35 / 20	20 ... 26	37 x 59 x 69
DD-600F	9 021 704	-35 ... +200	0.6	0.44	0.16	0.1 ... 0.7	8 ... 27	22 x 15 / 15	5 ... 7.5	33 x 47 x 69
DD-601F	9 021 705	-35 ... +200	0.6	0.44	0.16	0.1 ... 0.7	8 ... 27	22 x 15 / 20	8 ... 10	33 x 47 x 74
DD-800F	9 021 715.N1	-40 ... +200	0.84	0.74	0.39	0.1 ... 0.7	8 ... 27	18 x 13 / 15	5 ... 7.5	33 x 47 x 70
DD-1000F	9 021 707	-50 ... +200	1	0.96	0.51	0.1 ... 0.7	8 ... 27	18 x 13 / 15	5 ... 7.5	42 x 49 x 74
DD-1001F	9 021 708	-38 ... +100	1	0.85	0.32	0.1 ... 0.7	8 ... 27	35 x 41 / 30	42 ... 56	45 x 64 x 95
DD-1200F	9 021 717.N1	-50 ... +200	1.24	1.09	0.62	0.1 ... 0.7	8 ... 27	18 x 13 / 15	5 ... 7.5	33 x 47 x 70
DD-1200FW	9 021 728.N1	-50 ... +200	1.24	1.09	0.62	0.1 ... 0.7	8 ... 27	18 x 13 / 15	5 ... 7.5	33 x 47 x 70
DD-1201F	9 021 718.N1	-40 ... +100	1.25	1.1	0.63	0.1 ... 0.7	8 ... 27	35 x 41 / 30	48 ... 56	45 x 64 x 95

## Optional extension of interfaces

Upon customer request, all DYNEO circulators can be equipped with an additional digital or analog interface for integration into process systems. To do this, simply add an ".A" for the analog interface or a ".D" for the digital interface to the end of the order number.





## REFRIGERATED & ULTRA-LOW REFRIGERATED CIRCULATORS MAGIO



Product brochure  
online at  
[www.julabo.com](http://www.julabo.com)

From research institutes to industrial companies, laboratories around the world need high performance circulators for challenging temperature applications. The high-end circulators in the MAGIO range have been specially developed by JULABO with pioneering technologies for these requirements and are manufactured to the highest quality standards in Germany.

### **Powerful.**

- Ideal for demanding external applications
- Simple control of complex applications
- Continuously adjustable, extremely powerful pressure/suction pump
- Flow rate 16 ... 31 l/min, supply pressure 0.24 ... 0.92 bar, suction 0.03 ... 0.4 bar
- Large, high-resolution TFT touch display with multilingual user interface
- Stainless steel parts in contact with the medium
- Integrated programmer
- External Pt100 sensor connection
- USB interface
- RS232 interface
- Ethernet interface
- Analog interfaces (accessories)
- Classification III according to DIN 12876-1



# MAGIO™





### MAGIO refrigerated circulators – technical data

All refrigerated circulators have a temperature stability of  $\pm 0.01$  °C and a heating capacity of 2 kW (MAGIO MS) or 3 kW (MAGIO MX).

Model	Order No.	Working temperature range °C	Cooling capacity (kW) at bath temperature in °C			Pressure bar	Pump		Usable bath opening W x L / D cm	Filling volume liters	Dimensions W x L x H cm
			+20	0	-20		Suction bar	Flow rate l/min			
MS-310F	9 032 713.N1	-30 ... +200	0.26	0.21	0.10	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	13 x 15 / 15	3 ... 4	23 x 40 x 65
MS-450F	9 032 714.N1	-30 ... +200	0.4	0.33	0.12	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	13 x 15 / 15	3 ... 4	23 x 40 x 65
MS-449F	9 032 716.N1	-30 ... +200	0.4	0.31	0.19	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	28 x 35 / 20	18 ... 26	37 x 59 x 69
MS-600F	9 032 704	-35 ... +200	0.6	0.44	0.16	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	22 x 15 / 15	5 ... 7.5	33 x 47 x 69
MS-601F	9 032 705	-35 ... +200	0.6	0.44	0.16	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	22 x 15 / 20	8 ... 10	33 x 47 x 74
MS-800F	9 032 715.N1	-40 ... +200	0.86	0.76	0.41	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	18 x 13 / 15	5 ... 7.5	33 x 47 x 70
MS-1000F	9 032 707	-50 ... +200	1	0.96	0.51	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	18 x 13 / 15	5 ... 7.5	42 x 49 x 74
MS-1200F	9 032 717.N1	-50 ... +200	1.26	1.11	0.64	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	18 x 13 / 15	5 ... 7.5	33 x 47 x 70
MS-1200FW	9 032 728.N1	-50 ... +200	1.24	1.09	0.62	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	18 x 13 / 15	5 ... 7.5	33 x 47 x 70
MX-1800F	9 033 751.N1	-50 ... +200	1.8	1.5	0.7	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	18 x 13 / 20	6.5 ... 11	40 x 50 x 86
MX-2500F	9 033 752.N1	-50 ... +200	2.5	1.8	0.85	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	18 x 13 / 20	6.5 ... 11	40 x 50 x 86
<b>Ultra-low Refrigerated Circulators</b>											
MS-1000FF	9 032 757.N1	-90 ... +100	1.1	1	0.9	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	13 x 15 / 15	7.5 ... 10	55 x 60 x 94

### High-resolution TFT touch display

The modern TFT touch display gives you all important information at a glance. Three large, predefined main screens clearly display data and graphics with various application priorities. Menu navigation is self-explanatory, arranged by relevance to daily operations and easy to operate with the touch of a finger. The Help function provides detailed support in case of additional questions.





# CRYO-COMPACT CIRCULATORS ULTRA-LOW REFRIGERATED CIRCULATORS

## CF | Ultra-low refrigerated circulators



Product brochure  
online at  
[www.julabo.com](http://www.julabo.com)

### Compact and powerful – CF series

The CF series offers very compact refrigerated heating circulators. The small dimensions enable installation into the smallest spaces or inside technical equipment. All models feature 2 kW heating capacity and protection class III per DIN12876-1. A maximum permissible ambient temperature of +40 °C, as well as ventilation air cooling, allow close installation to other instruments or directly in the exhaust of a test system.

### JULABO ice-cold: Nothing is cooler.

JULABO ultra-low refrigerated circulators for heating and cooling in a working temperature range from -95 °C to +150°C. The instruments are suited for external temperature control applications and/or for temperature control directly in the circulator bath. The instruments offer particularly high heating and cooling capacities for short heat-up and cool-down times, even with large-volume, external applications. FP models with proportional cooling power control for energy savings and low heat waste. W models are water-cooled. With handle and/or rollers for easy transport and drain tap for easy emptying of the bath fluid. The instruments feature improved insulation, a level indicator as well as a heated bath cover plate to prevent condensation or ice build-up. Typical applications include the temperature control of jacketed reaction vessels, autoclaves, miniplant installations, kilo labs, freezing point determination, low temperature calibration, petroleum testing, etc.



Filling port with  
insulated cover



### CF cryo-compact circulators – technical data

The CF series provides a heating capacity of 2 kW and a temperature stability of  $\pm 0.02$  °C and  $\pm 0.03$  °C for CF30 and CF40

Model	Order No.	Working temperature range °C	Cooling capacity (kW) at bath temperature in °C			Pressure bar	Pump		Usable bath opening W × L / D cm	Filling volume liters	Dimensions W × L × H cm
			+20	0	-20		Suction bar	Flow rate l / min			
CF30	9 400 330	-30 ... +150	0.32	0.25	0.15	0.35	-	15	16 × 3 / 14	2 ... 3.5	24 × 46 × 40
CF40	9 400 340	-40 ... +150	0.47	0.4	0.28	0.35	-	15	19 × 3 / 19	4 ... 5.5	28 × 46 × 46
CF31	9 400 331	-30 ... +200	0.32	0.25	0.15	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	16 × 3 / 14	2 ... 3.5	24 × 46 × 40
CF41	9 400 341	-40 ... +200	0.47	0.4	0.28	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	19 × 3 / 19	4 ... 5.5	28 × 46 × 46



## Ultra-low refrigerated circulators – technical data

The ultra-low refrigerated circulators feature a heating capacity of 3 kW, except the F81-HL and FP89-HL models (heating capacity 1.3 kW). All models offer a temperature stability of  $\pm 0.05$  °C and FPW91-SL with  $\pm 0.2$  °C temperature stability.

Model	Order No.	Working temperature range °C	Cooling capacity (kW) at bath temperature in °C			Pressure bar	Pump		Usable bath opening W x L / D cm	Filling volume liters	Dimensions W x L x H cm
			+20	0	-20		Suction bar	Flow rate l/min			
F81-ME	9 162 681	-81 ... +100	0.45	0.38	0.36	0.23 ... 0.45	-	11 ... 16	13 x 15 / 16	5 ... 6.5	50 x 58 x 88
FP89-ME	9 162 689	-90 ... +100	1.0	0.92	0.88	0.23 ... 0.45	-	11 ... 16	13 x 15 / 16	5.5 ... 8	55 x 60 x 90
FP52-SL	9 352 752	-55 ... +100	3.0	2.8	1.6	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	28 x 23 / 22	17 ... 24	59 x 76 x 116
FP55-SL	9 352 755	-55 ... +100	5.2	4.1	2.2	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	28 x 23 / 22	27	85 x 76 x 116
F81-HL	9 312 681	-81 ... +100	0.45	0.38	0.36	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	13 x 15 / 16	5 ... 6.5	50 x 58 x 89
FP89-HL	9 312 689	-90 ... +100	1.0	0.92	0.88	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	13 x 15 / 16	5.5 ... 8	55 x 60 x 92
FP90-SL	9 352 790	-90 ... +100	1.8	1.7	1.6	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	28 x 23 / 22	22	59 x 76 x 116
FPW52-SL	9 352 753	-55 ... +100	3.0	2.8	1.6	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	28 x 23 / 22	17 ... 24	59 x 76 x 116
FPW55-SL	9 352 756	-55 ... +100	5.2	4.1	2.2	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	28 x 23 / 22	27	59 x 76 x 116
FPW90-SL	9 352 791	-90 ... +100	1.8	1.7	1.6	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	28 x 23 / 22	22	59 x 76 x 116
FPW91-SL	9 352 793	-91 ... +100	4.5	4.1	3.7	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	28 x 23 / 22	22	85 x 76 x 116
FP52-SL	9 352 752N	-55 ... +100	3.0	2.8	1.6	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	Filling port	17 ... 24	59 x 76 x 116
FP55-SL	9 352 755N	-55 ... +100	5.2	4.1	2.2	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	Filling port	27	85 x 76 x 116
FP52-SL	9 352 752N150	-55 ... +150	3.0	2.8	1.6	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	Filling port	17 ... 24	59 x 76 x 116
FP55-SL	9 352 755N150	-55 ... +150	5.2	4.1	2.2	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	Filling port	27	85 x 76 x 116
FPW52-SL	9 352 753N	-55 ... +100	3.0	2.8	1.6	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	Filling port	17 ... 24	59 x 76 x 116
FPW55-SL	9 352 756N	-55 ... +100	5.2	4.1	2.2	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	Filling port	27	59 x 76 x 116
FPW52-SL	9 352 753N150	-55 ... +150	3.0	2.8	1.6	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	Filling port	17 ... 24	59 x 76 x 116
FPW55-SL	9 352 756N150	-55 ... +150	5.2	4.1	2.2	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	Filling port	27	59 x 76 x 116
FP90-SL	9 352 790N	-90 ... +100	1.8	1.7	1.6	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	Filling port	22	59 x 76 x 116
F95-SL	9 352 795N	-95 ... 0	-	1.7	1.5	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	Filling port	22	59 x 76 x 116
FP90-SL	9 352 790N150	-90 ... +150	1.8	1.7	1.6	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	Filling port	22	59 x 76 x 116
FPW90-SL	9 352 791N	-90 ... +100	1.8	1.7	1.6	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	Filling port	22	59 x 76 x 116
FPW91-SL	9 352 793N	-91 ... +100	4.5	4.1	3.7	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	Filling port	22	85 x 76 x 116
FW95-SL	9 352 796N	-95 ... 0	-	1.7	1.5	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	Filling port	22	59 x 76 x 116
FPW90-SL	9 352 791N150	-90 ... +150	1.8	1.7	1.6	0.4 ... 0.7	0.2 ... 0.4	22 ... 26	Filling port	22	59 x 76 x 116





# HEATING CIRCULATORS

CORIO | DYNEO | MAGIO

## Heating technology from +20 °C to +300 °C.

Heating circulators made by JULABO are used worldwide. Whether in research, material testing or technical systems, users in industries around the world rely on the tried and tested technology. Focused on your requirements, JULABO heating circulators have set the benchmark for temperature control technology for decades. The JULABO range of circulators offers the functional solution for your day-to-day work, whether routine tasks or highest requirements: CORIO, DYNEO and MAGIO – three model series for every requirement and every budget.



Product brochure  
online at  
[www.julabo.com](http://www.julabo.com)

## Powerful.

- Models for working temperatures from +20 °C to +300 °C
- Available as heating immersion circulators, bridge mounted circulators, open heating bath circulators, bath or heating circulators
- Suitable for internal and/or external applications
- Bath tanks made of transparent plastic or stainless steel (according to choice)



## JULABO heating circulators for every application

**Heating immersion circulators** form the basis of the JULABO circulator portfolio. They can be mounted on bath tanks with up to 50 liters.

The **bridge mounted circulator** is delivered with an adjustable stainless steel telescope bridge.

**Open heating bath circulators** are suited for internal applications, such as temperature control of samples.



### Heating immersion, bridge-mounted and open heating bath circulators – technical data

Model	Order No.	Working temperature range °C	Temperature stability °C	Heating capacity kW	Pressure bar	Pump Suction bar	Flow rate l/min	Usable bath opening W × L / D cm	Filling volume liters	Dimensions W × L × H cm
<b>Heating immersion circulators CORIO</b>										
<b>C</b>	<b>9 011 000</b>	+20 ... +100	± 0.03	2	0.1	-	6	-	-	13.2 × 16 × 36.2
<b>CD</b>	<b>9 012 000</b>	+20 ... +150	± 0.03	2	0.35	-	15	-	-	13.2 × 16 × 36.2
<b>CP</b>	<b>9 013 000</b>	+20 ... +200	± 0.02	2	0.1 ... 0.7	-	8 ... 27	-	-	13.2 × 16 × 36.2
<b>Heating immersion circulator DYNEO</b>										
<b>DD</b>	<b>9 021 000</b>	+20 ... +200	± 0.01	2	0.1 ... 0.7	-	8 ... 27	-	-	13.2 × 16 × 35.5
<b>Bridge mounted circulators MAGIO</b>										
<b>MS-Z</b>	<b>9 032 201</b>	+20 ... +300	± 0.01	2	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	-	-	34 × 19 × 36
<b>MX-Z</b>	<b>9 033 201</b>	+20 ... +300	± 0.01	3	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	-	-	34 × 19 × 41
<b>Open heating bath circulators CORIO</b>										
<b>C-BT5</b>	<b>9 011 305</b>	+20 ... +100	± 0.03	2	0.1	-	6	15 × 15 / 15	3.5 ... 5	23 × 38 × 38
<b>C-BT9</b>	<b>9 011 309</b>	+20 ... +100	± 0.03	2	0.1	-	6	23 × 15 / 15	6 ... 9	32 × 38 × 38
<b>C-BT19</b>	<b>9 011 319</b>	+20 ... +100	± 0.03	2	0.1	-	6	30 × 35 / 15	14 ... 19	38 × 58 × 38
<b>C-BT27</b>	<b>9 011 327</b>	+20 ... +100	± 0.03	2	0.1	-	6	30 × 35 / 15	20 ... 27	38 × 58 × 43
<b>C-B5</b>	<b>9 011 405</b>	+20 ... +100	± 0.03	2	0.1	-	6	15 × 15 / 15	3.5 ... 5	23 × 38 × 41
<b>C-B13</b>	<b>9 011 413</b>	+20 ... +100	± 0.03	2	0.1	-	6	30 × 18 / 15	9 ... 13	38 × 40 × 42
<b>C-B17</b>	<b>9 011 417</b>	+20 ... +100	± 0.03	2	0.1	-	6	30 × 18 / 20	13 ... 17	38 × 40 × 47
<b>C-B19</b>	<b>9 011 419</b>	+20 ... +100	± 0.03	2	0.1	-	6	30 × 35 / 15	14 ... 19	38 × 58 × 42
<b>C-B27</b>	<b>9 011 427</b>	+20 ... +100	± 0.03	2	0.1	-	6	30 × 35 / 20	17 ... 27	38 × 58 × 47



# HEATING CIRCULATORS

CORIO | DYNEO | MAGIO

## Heating circulators with open baths for different applications

**Heating circulators with open baths** can be used for internal and external applications, because the changeover between internal and external temperature control is very easy.

**Heating circulators** are tailored to external temperature control applications and offer the best heat insulation.

### Powerful.

- Models for working temperatures from +20 °C to +300 °C
- Large selection of models for internal and external applications
- Bath tanks made of transparent plastic or stainless steel (according to choice)
- Easy operation
- Bright displays, easy to read even from a distance
- State-of-the-art control technology for quick results and precision
- With many professional functions (model specific) for adjusting control parameters, temperature calibration, temperature profiles, etc.
- Powerful circulating pumps – electronically adjustable
- High heating capacities for rapid heat-up



Product brochure  
online at  
[www.julabo.com](http://www.julabo.com)

Accessories at  
[www.julabo.com](http://www.julabo.com)





### Heating circulators with open baths – technical data

Model	Order No.	Working temperature range °C	Temperature stability °C	Heating capacity kW	Pressure bar	Pump Suction bar	Flow rate l/min	Usable bath opening W × L / D cm	Filling volume liters	Dimensions W × L × H cm
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#### Heating circulators with open baths CORIO

CD-BT5	9 012 305	+20 ... +100	± 0.03	2	0.35	-	15	15×15/15	3.5 ... 5	23×38×38
CD-BT19	9 012 319	+20 ... +100	± 0.03	2	0.35	-	15	30×35/15	14 ... 19	38×58×38
CD-BT27	9 012 327	+20 ... +100	± 0.03	2	0.35	-	15	30×35/20	20 ... 27	38×58×43
CD-B5	9 012 405	+20 ... +150	± 0.03	2	0.35	-	15	15×15/15	3.5 ... 5	23×38×41
CD-B13	9 012 413	+20 ... +150	± 0.03	2	0.35	-	15	30×18/15	9 ... 13	38×40×42
CD-B17	9 012 417	+20 ... +150	± 0.03	2	0.35	-	15	30×18/20	13 ... 17	38×40×47
CD-B19	9 012 419	+20 ... +150	± 0.03	2	0.35	-	15	30×35/15	14 ... 19	38×58×42
CD-B27	9 012 427	+20 ... +150	± 0.03	2	0.35	-	15	30×35/20	17 ... 27	38×58×47
CD-B33	9 012 433	+20 ... +150	± 0.03	2	0.35	-	15	66×32/15	26 ... 39	91×36×43
CD-B39	9 012 439	+20 ... +150	± 0.03	2	0.35	-	15	33×30/30	35 ... 41	54×34×57

#### Heating circulators CORIO

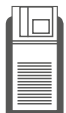
CD-BC4	9 012 504	+20 ... +150	± 0.03	2	0.35	-	15	13×15/15	3 ... 4.5	23×41×42
CP-BC4	9 013 504	+20 ... +200	± 0.02	2	0.1 ... 0.7	-	8 ... 27	13×15/15	3 ... 4.5	23×41×42
CD-BC6	9 012 506	+20 ... +150	± 0.03	2	0.35	-	15	13×15/20	4.5 ... 6	24×44×47
CP-BC6	9 013 506	+20 ... +200	± 0.02	2	0.1 ... 0.7	-	8 ... 27	13×15/20	4.5 ... 6	24×44×47
CD-BC12	9 012 512	+20 ... +150	± 0.03	2	0.35	-	15	22×15/20	8.5 ... 12	33×49×47
CP-BC12	9 013 512	+20 ... +200	± 0.02	2	0.1 ... 0.7	-	8 ... 27	22×15/20	8.5 ... 12	33×49×47
CD-BC26	9 012 526	+20 ... +150	± 0.03	2	0.35	-	15	26×35/20	19 ... 26	39×62×48
CP-BC26	9 013 526	+20 ... +200	± 0.02	2	0.1 ... 0.7	-	8 ... 27	26×35/20	19 ... 26	39×62×48

#### Heating circulators DYNEO

DD-BC4	9 021 504	+20 ... +200	± 0.01	2	0.1 ... 0.7	-	8 ... 27	13×15/15	3 ... 4.5	23×41×42
DD-BC4	9 021 504.D	+20 ... +200	± 0.01	2	0.1 ... 0.7	-	8 ... 27	13×15/15	3 ... 4.5	23×41×42
DD-BC4	9 021 504.A	+20 ... +200	± 0.01	2	0.1 ... 0.7	-	8 ... 27	13×15/15	3 ... 4.5	23×41×42
DD-BC6	9 021 506	+20 ... +200	± 0.01	2	0.1 ... 0.7	-	8 ... 27	13×15/20	4.5 ... 6	24×44×47
DD-BC6	9 021 506.D	+20 ... +200	± 0.01	2	0.1 ... 0.7	-	8 ... 27	13×15/20	4.5 ... 6	24×44×47
DD-BC6	9 021 506.A	+20 ... +200	± 0.01	2	0.1 ... 0.7	-	8 ... 27	13×15/20	4.5 ... 6	24×44×47
DD-BC12	9 021 512	+20 ... +200	± 0.01	2	0.1 ... 0.7	-	8 ... 27	22×15/20	8.5 ... 12	33×49×47
DD-BC12	9 021 512.D	+20 ... +200	± 0.01	2	0.1 ... 0.7	-	8 ... 27	22×15/20	8.5 ... 12	33×49×47
DD-BC12	9 021 512.A	+20 ... +200	± 0.01	2	0.1 ... 0.7	-	8 ... 27	22×15/20	8.5 ... 12	33×49×47
DD-BC26	9 021 526	+20 ... +200	± 0.01	2	0.1 ... 0.7	-	8 ... 27	26×35/20	19 ... 26	39×62×48
DD-BC26	9 021 526.D	+20 ... +200	± 0.01	2	0.1 ... 0.7	-	8 ... 27	26×35/20	19 ... 26	39×62×48
DD-BC26	9 021 526.A	+20 ... +200	± 0.01	2	0.1 ... 0.7	-	8 ... 27	26×35/20	19 ... 26	39×62×48

#### Heating circulators MAGIO

MS-BC4	9 032 504	+20 ... +300	± 0.01	2	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	13×15/15	3 ... 4.5	23×41×42
MX-BC6	9 033 506	+20 ... +300	± 0.01	3	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	13×15/20	4.5 ... 6	24×44×47
MX-BC12	9 033 512	+20 ... +300	± 0.01	3	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	22×15/20	8.5 ... 12	33×49×47
MX-BC26	9 033 526	+20 ... +300	± 0.01	3	0.24 ... 0.92	0.03 ... 0.4	16 ... 31	26×35/20	19 ... 26	39×62×48



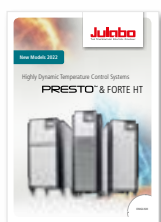
# HIGHLY DYNAMIC TEMPERATURE CONTROL SYSTEMS

## PRESTO | FORTE HT



**NATURAL REFRIGERANT**

Units with this symbol work with environmentally friendly, natural refrigerants.



Product brochure online at [www.julabo.com](http://www.julabo.com)

### PRESTO: Best performance for highly dynamic temperature control systems

With high cooling and heating capacities, PRESTO systems cover a working temperature range of -93 °C to +250 °C. Their highly efficient components can compensate exothermic and endothermic reactions extremely fast.

- Ideal for high precision, external temperature control tasks from -93 °C ... +250 °C
- Broad working temperature ranges without changing the bath fluid
- Extremely rapid cool-down and heat-up
- Powerful circulation pumps, adjusted in increments or to predefined pressure values

### FORTE HT with optional cooling unit

The high temperature circulators of the FORTE HT series control the temperature of external closed systems. These compact instruments have a closed design. Even at high temperatures, there is no offgasing of oil odors.

- High heating capacity up to 7 kW for short heat-up times
- High pump capacity
- Low filling volume
- Cooling water connection for cold oil overlay
- External Pt100 sensor connection
- Numerous interfaces

### Models with C.U. cooling units also provide:

- Pulsed cooling water supply for temperature control tasks starting at +40 °C
- Cooling power up to max. 15 kW (cooling water at +20 °C and oil temperature at +300 °C)
- Rapid cool-down to low temperatures in very little time
- Fast compensation, e.g. of exothermal reactions

Accessories at [www.julabo.com](http://www.julabo.com)

FORTE HT without cooling unit



FORTE HT with cooling unit



# PRESTO™



### Highly dynamic temperature control systems – technical data

Model	Order No.	Working temperature range °C	Temperature stability °C	Heating capacity kW	Cooling capacity (kW) at bath temperature in °C			Pump		Cooling of refrigerant unit	Dimensions W x D x H cm
					+20	0	-20	Pressure bar	Flow rate l/min		
<b>PRESTO</b>											
A30	9 420 300	-30 ... +250	±0.01 ... ±0.05	2.7	0.5	0.4	0.2	0.5	25	1-st. Air	25 × 59 × 62
A38	9 420 381.N1	-45 ... +250	±0.01 ... ±0.05	2.7	0.79	0.73	0.44	0.1 ... 1.6	0 ... 50	1-st. Air	33 × 75 × 67
A40	9 420 401	-40 ... +250	±0.01 ... ±0.05	2.7	1.2	0.9	0.6	0.1 ... 1.7	0 ... 40	1-st. Air	33 × 59 × 67
W40	9 421 401	-40 ... +250	±0.01 ... ±0.05	2.7	1.2	1.	0.55	0.1 ... 1.7	0 ... 40	1-st. Water	33 × 59 × 67
A41	9 420 411.N1	-45 ... +250	±0.01 ... ±0.05	2.7	1.33	1.24	0.46	0.1 ... 1.6	0 ... 50	1-st. Air	33 × 75 × 67
W41	9 421 411.N1	-45 ... +250	±0.01 ... ±0.05	2.7	1.33	1.24	0.46	0.1 ... 1.6	0 ... 50	1-st. Water	33 × 75 × 67
A45	9 420 452	-45 ... +250	±0.05 ... ±0.1	6	3.5	3.3	1.8	0.1 ... 3	0 ... 80	1-st. Air	53 × 66.5 × 126
A45t	9 420 452.T	-45 ... +250	±0.05 ... ±0.1	12	3.5	3.3	1.8	0.1 ... 3	0 ... 80	1-st. Air	53 × 66.5 × 126
W50	9 421 502	-50 ... +250	±0.05 ... ±0.1	6	7.5	6.5	3	0.1 ... 3	0 ... 80	1-st. Water	53 × 66.5 × 126
W50t	9 421 502.T	-50 ... +250	±0.05 ... ±0.1	12	7.5	6.5	3	0.1 ... 3	0 ... 80	1-st. Water	53 × 66.5 × 126
W55	9 421 552	-55 ... +250	±0.05 ... ±0.2	15	15	10	4	0.1 ... 3	0 ... 80	1-st. Water	61 × 84.5 × 125
W56	9 421 562	-56 ... +250	±0.05 ... ±0.1	27	25.8	23.1	11.5	0.1 ... 3	0 ... 80	1-st. Water	60 × 94 × 164
W56x	9 421 563.S1	-50 ... +250	±0.05 ... ±0.1	27	25.8	23.1	11.5	0.1 ... 5.5	0 ... 70	1-st. Water	60 × 94 × 164
W58x	9 421 583.S1	-50 ... +250	±0.05 ... ±0.1	27	33	32	19	0.1 ... 5.5	0 ... 70	1-st. Water	70 × 108 × 174
A70	9 420 701.N1	-75 ... +250	±0.01 ... ±0.05	1.8	1	0.91	0.84	0.1 ... 1.7	0 ... 40	2-st. Air	57 × 74.5 × 88
A80	9 420 801	-80 ... +250	±0.01 ... ±0.05	1.8	1.2	1.2	1.1	0.1 ... 1.7	0 ... 40	2-st. Air	43 × 65 × 126
A80t	9 420 801.T	-80 ... +250	±0.01 ... ±0.05	3.4	1.2	1.2	1.1	0.1 ... 1.7	0 ... 40	2-st. Air	43 × 65 × 126
W80	9 421 801	-80 ... +250	±0.01 ... ±0.05	1.8	1.2	1.2	1.1	0.1 ... 1.7	0 ... 40	2-st. Water	43 × 65 × 126
W80t	9 421 801.T	-80 ... +250	±0.01 ... ±0.05	3.4	1.2	1.2	1.1	0.1 ... 1.7	0 ... 40	2-st. Water	43 × 65 × 126
A85	9 420 852	-85 ... +250	±0.05 ... ±0.1	6	2.5	2.4	2.4	0.1 ... 3	0 ... 80	2-st. Air	61 × 108 × 125
A85t	9 420 852.T	-85 ... +250	±0.05 ... ±0.1	15	2.5	2.4	2.4	0.1 ... 3	0 ... 80	2-st. Air	61 × 108 × 125
W85	9 421 852	-85 ... +250	±0.05 ... ±0.1	6	2.5	2.4	2.4	0.1 ... 3	0 ... 80	2-st. Water	61 × 84.5 × 125
W85t	9 421 852.T	-85 ... +250	±0.05 ... ±0.1	15	2.5	2.4	2.4	0.1 ... 3	0 ... 80	2-st. Water	61 × 84.5 × 125
W91	9 421 912	-91 ... +250	±0.05 ... ±0.2	18	11	11	11	0.1 ... 3	0 ... 80	2-st. Water	95 × 127 × 190
W91tt	9 421 912.TT	-91 ... +250	±0.05 ... ±0.2	36	11	11	11	0.1 ... 3	0 ... 80	2-st. Water	95 × 127 × 190
W91x	9 421 913	-91 ... +250	±0.05 ... ±0.2	18	11	11	11	0.1 ... 5.5	0 ... 70	2-st. Water	95 × 127 × 190
W91ttx	9 421 913.TT	-91 ... +250	±0.05 ... ±0.2	36	11	11	11	0.1 ... 5.5	0 ... 70	2-st. Water	95 × 127 × 190
W92	9 421 922	-92 ... +250	±0.05 ... ±0.2	18	27	20	11	0.1 ... 3	0 ... 80	2-st. Water	95 × 127 × 190
W92tt	9 421 922.TT	-92 ... +250	±0.05 ... ±0.2	36	27	20	11	0.1 ... 3	0 ... 80	2-st. Water	95 × 127 × 190
W92x	9 421 923	-92 ... +250	±0.05 ... ±0.2	18	27	20	11	0.1 ... 5.5	0 ... 70	2-st. Water	95 × 127 × 190
W92ttx	9 421 923.TT	-92 ... +250	±0.05 ... ±0.2	36	27	20	11	0.1 ... 5.5	0 ... 70	2-st. Water	95 × 127 × 190
W93	9 421 932.N1	-93 ... +250	±0.05 ... ±0.2	27	19.5	19.5	19.5	0.1 ... 3	0 ... 80	2-st. Water	93 × 148 × 192
W93x	9 421 933.N1	-93 ... +250	±0.05 ... ±0.2	27	19.5	19.5	19.5	0.1 ... 5.5	0 ... 70	2-st. Water	93 × 138 × 192

Model	Order No.	Working temperature range °C	Temperature stability external °C	Heating capacity kW	Cooling capacity (water +20 °C) kW, max.	Pump		Dimensions Circulator W x D x H cm	Dimensions Control electronics W x D x H cm
						Pressure bar	Flow rate l/min		
<b>FORTE HT</b>									
HT30-M1	9 800 031	+70 ... +400	±0.01 ... ±0.1	3	-	0.8 - 1.2	14 - 18	23 × 23 × 58	25 × 25 × 18
HT60-M2	9 800 062	+70 ... +400	±0.01 ... ±0.1	7	-	0.8 - 1.2	14 - 18	23 × 23 × 58	25 × 25 × 18
HT60-M3	9 800 063	+70 ... +400	±0.01 ... ±0.1	6	-	0.8 - 1.2	14 - 18	23 × 23 × 58	25 × 25 × 18
HT30-M1-C.U.	9 800 035	+40 ... +400	±0.01 ... ±0.1	3	15	0.8 - 1.2	14 - 18	43 × 23 × 58	25 × 25 × 18
HT60-M2-C.U.	9 800 065	+40 ... +400	±0.01 ... ±0.1	7	15	0.8 - 1.2	14 - 18	43 × 23 × 58	25 × 25 × 18
HT60-M3-C.U.	9 800 066	+40 ... +400	±0.01 ... ±0.1	6	15	0.8 - 1.2	14 - 18	43 × 23 × 58	25 × 25 × 18



# RECIRCULATING COOLERS AND CHILLERS

AWC | F | FL



Product brochure  
online at  
[www.julabo.com](http://www.julabo.com)

## Environmentally-friendly cooling while saving tap water.

JULABO recirculating coolers and chillers are powerful solutions for a wide range of cooling requirements in laboratories and industrial environments. The instruments' short cool-down times and high efficiency make them an economic alternative to tap water cooling. The compact design offers a space saving installation. The instruments are equipped with a bright LED temperature display, easy to read even from a distance. W models are water-cooled for quiet operation and low heat waste. Warning and safety functions enable reliable, continuous operation. Filling and emptying is quick and easy via a well accessible filling and/or drain tap.



AC100 for working near  
ambient temperature

### Air-to-water recirculating cooler AWC100

- Particularly small space requirement
- Energy-saving
- Cooling capacity adjustable in two steps

### F models: compact recirculating coolers

- Working temperature ranges from -10 °C to +40 °C
- Cooling capacity up to 1 kW
- Environmentally-friendly operation with low energy consumption

### FL models: powerful recirculating coolers

- Working temperature ranges from -25 °C to +40 °C
- Cooling capacity up to 20 kW
- Powerful circulating pumps



Drain tap located behind  
removable venting grid



Accessories at  
[www.julabo.com](http://www.julabo.com)





## Recirculating coolers and chillers – technical data

Model	Order No.	Working temperature range °C	Temperature stability °C	Cooling capacity (kW) at bath temperature in °C			Pump		Cooling of refrigerant unit	Filling volume liters	Dimensions W x D x H cm
				+20	0	-20	Pressure bar	Flow rate l/min			

### Air-to-water recirculating cooler

<b>AWC100<sup>1)</sup></b>	<b>9 630 100</b>	+20 ... +40		0.55	-	-	0.2	2.9	Air	0.9	20 x 34 x 30
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### Compact recirculating coolers, F series

<b>F250</b>	<b>9 620 025</b>	-10 ... +40	±0.5	0.25	0.18	-	0.35	15	Air	1.7 ... 2.6	24 x 40 x 52
<b>F500</b>	<b>9 620 050</b>	0 ... +40	±0.5	0.5	0.25	-	0.5	24	Air	5 ... 7.5	37.5 x 44 x 59
<b>F1000</b>	<b>9 620 100</b>	0 ... +40	±0.5	1	0.35	-	1	23	Air	7 ... 9.5	37.5 x 49 x 64

### Recirculating coolers, FL series

<b>FL300</b>	<b>9 660 003</b>	-20 ... +40	±0.5	0.3	0.2	0.1	0.35	15	Air	3 ... 4.5	25 x 50 x 60
<b>FL601</b>	<b>9 661 006</b>	-20 ... +40	±0.5	0.6	0.4	0.2	1	23	Air	5.5 ... 8	32 x 50 x 60
<b>FL1201</b>	<b>9 661 012</b>	-20 ... +40	±0.5	1.2	0.9	0.3	1	23	Air	12 ... 17	50 x 76 x 64
<b>FL1203</b>	<b>9 663 012</b>	-20 ... +40	±0.5	1.2	0.8	0.2	0.5 ... 3	40	Air	12 ... 17	50 x 76 x 64
<b>FL1701</b>	<b>9 661 017</b>	-20 ... +40	±0.5	1.7	1.1	0.4	1	23	Air	12 ... 17	50 x 76 x 64
<b>FL1703</b>	<b>9 663 017</b>	-20 ... +40	±0.5	1.7	1	0.3	0.5 ... 3	40	Air	12 ... 17	50 x 76 x 64
<b>FLW1701</b>	<b>9 671 017</b>	-20 ... +40	±0.5	1.7	1.1	0.4	1	23	Water	12 ... 17	50 x 76 x 64
<b>FLW1703</b>	<b>9 673 017</b>	-20 ... +40	±0.5	1.7	1	0.3	0.5 ... 3	40	Water	12 ... 17	50 x 76 x 64
<b>FL2503</b>	<b>9 663 025</b>	-20 ... +40	±0.5	2.5	1.5	0.55	0.5 ... 3	40	Air	24 ... 30	60 x 76 x 115
<b>FL2506</b>	<b>9 666 025</b>	-15 ... +40	±0.5	2.5	1	-	0.5 ... 6	60	Air	24 ... 30	60 x 76 x 115
<b>FL4003</b>	<b>9 663 040</b>	-20 ... +40	±0.5	4	2.4	0.65	0.5 ... 3	40	Air	24 ... 30	60 x 76 x 115
<b>FL4006</b>	<b>9 666 040</b>	-20 ... +40	±0.5	4	1.9	0.05	0.5 ... 6	60	Air	24 ... 30	60 x 76 x 115
<b>FLW2503</b>	<b>9 673 025</b>	-20 ... +40	±0.5	2.7	1.7	0.4	0.5 ... 3	40	Water	24 ... 30	60 x 76 x 115
<b>FLW2506</b>	<b>9 676 025</b>	-15 ... +40	±0.5	2.5	1	-	0.5 ... 6	60	Water	24 ... 30	60 x 76 x 115
<b>FLW4003</b>	<b>9 673 040</b>	-20 ... +40	±0.5	4.3	2.2	0.45	0.5 ... 3	40	Water	24 ... 30	60 x 76 x 115
<b>FLW4006</b>	<b>9 676 040</b>	-15 ... +40	±0.5	4	1.7	-	0.5 ... 6	60	Water	24 ... 30	60 x 76 x 115
<b>FL7006</b>	<b>9 666 070</b>	-20 ... +40	±0.5	7	5.1	1.55	0.5 ... 6	60	Air	39 ... 47	78 x 85 x 148
<b>FL11006</b>	<b>9 666 110</b>	-20 ... +40	±0.5	11	7.5	3	0.5 ... 6	60	Air	39 ... 47	78 x 85 x 148
<b>FL20006</b>	<b>9 666 200</b>	-25 ... +40	±0.5	20	10	2.5	0.8 ... 6	80	Air	15 ... 37	95 x 115 x 161
<b>FLW7006</b>	<b>9 676 070</b>	-20 ... +40	±0.5	7.4	7	1.3	0.5 ... 6	60	Water	39 ... 47	78 x 85 x 148
<b>FLW11006</b>	<b>9 676 110</b>	-20 ... +40	±0.5	11.5	7.3	2.7	0.5 ... 6	60	Water	39 ... 47	78 x 85 x 148
<b>FLW20006</b>	<b>9 676 200</b>	-25 ... +40	±0.5	20	12	3	0.8 ... 6	80	Water	15 ... 37	95 x 115 x 161

<sup>1)</sup> Cooling capacity depends on the temperature difference between return flow and ambient environment.

# RECIRCULATING COOLER AND CHILLER

FC | SemiChill



## SemiChill recirculating cooler for industrial applications

The SemiChill series offers powerful recirculating coolers, particularly for applications in the semiconductor industry. Five models with cooling capacities from 2.5 to 10 kW (air- and water-cooled) are available. The working temperature ranges from +5 °C to +35 °C (optionally from -20 °C to +130 °C). Different pumps and electronic modules can be selected. They cover from simple to sophisticated requirements, such as flow rate and conductivity measurements, external control or integration via analog signal, RS232 or Ethernet. The program is completed with accessories and options, such as DI filter, micro filter, USB adapter, etc.

- Five basic models, individually configurable
- High cooling capacity and powerful circulating pumps
- Optional integrated heater with heating capacity up to 12 kW
- Gasket-free immersion pumps, maintenance-free and electronically adjustable
- Feed pressure indicator and level indicator
- Sealed filling port (Ø 70 mm)
- Overload protection for pump motor and refrigeration unit



Product brochure  
online at  
[www.julabo.com](http://www.julabo.com)

### Recirculating coolers and chillers – technical data

Model	Order No.	Working temperature range °C	Temp. stability °C	Cooling capacity (kW) at bath temperature in °C			Pump		Cooling of refrigerant unit	Filling volume liters	Dimensions W × D × H cm
				+20	0	-20	Pressure bar	Flow rate l/min			

#### SemiChill Recirculating Coolers

SC2500a	9500025XXP3H0D0M0	+5 ... +35	±0.1	2.5	1.5	-	3.5	33	Air	21 ... 33	49 × 62 × 105
SC2500w	9500026XXP3H0D0M0	+5 ... +35	±0.1	2.5	1.5	-	3.5	33	Water	21 ... 33	49 × 62 × 105
SC5000a	9500050XXP3H0D0M0	+5 ... +35	±0.1	5.0	2.5	-	3.5	33	Air	43 ... 60	59 × 67 × 112
SC5000w	9500051XXP3H0D0M0	+5 ... +35	±0.1	5.0	2.5	-	3.5	33	Water	43 ... 60	59 × 67 × 112
SC10000w	9500101XXP3H0D0M0	+5 ... +35	±0.1	10.0	5.0	-	3.5	33	Water	43 ... 60	59 × 67 × 112

#### FC Recirculating Coolers

FC600	9 600 060	-20 ... +80	±0.2	0.6	0.33	-	0.5	20	Air	6 ... 8	35 × 54 × 49
FC600S	9 600 063	-10 ... +80	±0.2	0.5	0.22	-	1.2	22	Air	6 ... 8	35 × 54 × 49
FC1200	9 600 120	-20 ... +80	±0.2	1.3	0.6	-	0.5	20	Air	8 ... 11	46 × 61 × 49
FC1200S	9 600 123	-15 ... +80	±0.2	1.2	0.5	-	1.2	22	Air	8 ... 11	46 × 61 × 49
FC1600	9 600 160	-20 ... +80	±0.2	1.65	0.8	-	0.5	20	Air	8 ... 11	46 × 61 × 49
FC1600S	9 600 163	-15 ... +80	±0.2	1.55	0.65	-	1.2	22	Air	8 ... 11	46 × 61 × 49
FC1200T	9 600 126	-10 ... +80	±0.2	1.1	0.4	-	3.5	28	Air	8 ... 11	46 × 61 × 49
FC1600T	9 600 166	-15 ... +80	±0.2	1.45	0.5	-	3.5	28	Air	8 ... 11	46 × 61 × 49
FCW600	9 601 060	-20 ... +80	±0.2	0.6	0.33	-	0.5	20	Water	6 ... 8	35 × 54 × 49
FCW600S	9 601 063	-10 ... +80	±0.2	0.5	0.22	-	1.2	22	Water	6 ... 8	35 × 54 × 49
FCW2500T	9 601 256	-25 ... +80	±0.2	2.5	2	0.25	3.5	28	Water	8 ... 11	46 × 61 × 49

## WATER BATHS AND SHAKING WATER BATHS

PURA | SW



### High quality. Practical. Durable.

Users place high demands on modern water baths in terms of functionality and reliability. Above all, a water bath must be trouble-free and low-maintenance in everyday operations. For this reason, JULABO does not only count on proven functions in the new PURA series of water baths, but particularly also on simple, intuitive operation and high material and component quality.

### Experienced and safe.

A shaking water bath from JULABO provides the convenience of a water-proof membrane keypad and a bright multi-display (LED) for indication of up to four different values. Microprocessor technology with PID temperature control ensures optimal temperature stability in the water bath.



Product brochure online at [www.julabo.com](http://www.julabo.com)

### PURA water baths

- Working temperature range<sup>1)</sup> from +18 °C to +99.9 °C
- Models with bath volumes from 0.8 to 36 liters
- Heating capacity up to 2 kW
- Splash-proof protected mains switch
- Built-in dry running protection
- Removable platform for full immersion of the sample containers (included)

### Shaking water baths

- Working temperature ranges from +20 °C to +99.9 °C
- Dry-running protection with acoustic and optical alarm
- Warning and cut-off protection for high/low temperature
- Adjustable shaking frequency from 20 to 200 rpm
- Drain-screw for emptying
- Removable bottom cover plate and shaking insert

### PURA & Shaking Waterbaths – technical data

Model	Order No..	Working temperature range <sup>1)</sup>	Temperature stability <sup>2)</sup>	Heating capacity	Possible test tube racks (accessories)	Bath opening/ bath depth W × L / D	Filling volume	Dimensions without cover W × D × H
		°C	°C	kW		cm	liters	cm
PURA 4	9 550 504	+18 ... +99.9	±0.15	0.5	1	12 × 27 / 14	0.8 ... 4.5	21 × 38 × 30
PURA 10	9 550 510	+18 ... +99.9	±0.15	1.2	2	22 × 27 / 14	1.4 ... 9.5	31 × 38 × 30
PURA 14	9 550 514	+18 ... +99.9	±0.15	1.8	3	33 × 27 / 17	2 ... 14	42 × 38 × 30
PURA 22	9 550 522	+18 ... +99.9	±0.15	2	5	55 × 27 / 18	3.4 ... 25.5	63 × 38 × 30
PURA 30	9 550 530	+18 ... +99.9	±0.15	2	7	77 × 27 / 18	4.8 ... 36	85 × 38 × 30

Model	Order No..	Working temperature range <sup>1)</sup>	Temperature stability <sup>2)</sup>	Heating capacity	Shaking frequency	Shaking stroke	Bath opening/ bath depth W × L / D	Filling volume	Dimensions without cover W × D × H
		°C	°C	kW	U/min	mm	cm	liters	cm
SW22	9 550 322	+20 ... +99.9	±0.2	2	20 ... 200	15	50 × 30 / 18	8 ... 20	70 × 35 × 26
SW23	9 550 323	+20 ... +99.9	±0.02	2	20 ... 200	15	50 × 30 / 18	8 ... 20	70 × 35 × 26

<sup>1)</sup> with counter-cooling/bath cover (accessories) <sup>2)</sup> with bath cover (accessories)



## INSTRUMENTS FOR SPECIAL REQUIREMENTS

Calibration baths | forcing test circulators | immersion coolers  
 flow-through coolers | laboratory temperature controllers  
 wireless communication & software



Product brochure  
 online at  
[www.julabo.com](http://www.julabo.com)

### Wide range of applications for the right temperature

JULABO provides instruments for different lab applications, including calibration of temperature sensors, cooling of chemicals, and determination of the 'best before' date of beer.

### Wireless communication & software

JULABO networking solutions and EasyTEMP simplify and automate your workflows. JULABO temperature control instruments are comfortably controlled and monitored via PC or Tablet PC.



**WirelessTEMP™**



### Calibration baths and forcing test circulators – technical data

The calibration baths provide a temperature stability of up to  $\pm 0.005$  °C and the beer forcing test heating/refrigerated circulators of  $\pm 0.05$  °C.

Model	Order No.	Working temperature range °C	Heating capacity kW	Cooling capacity (kW) at bath temperature in °C (Medium: Ethanol)			Pump		Bath opening/ bath depth W x L / D cm	Filling volume liters	Dimensions W x D x H cm
				+20	0	-20	Pressure bar	Flow rate l/min			

#### Calibration Baths

SL-8K*	9 352 508	+50 ... +300	3	-	-	-	0.4 ... 0.7	22 ... 26	Ø 12/17	8	22 x 46 x 47
SL-14K*	9 352 514	+50 ... +300	3	-	-	-	0.4 ... 0.7	22 ... 26	Ø 12/31	14	22 x 46 x 61
FK30-SL	9 352 627	-30 ... +200	2	0.46	0.34	0.15	0.4 ... 0.7	22 ... 26	Ø 12/17	14	32 x 45 x 79
FK31-SL	9 352 628	-30 ... +200	2	0.46	0.34	0.15	0.4 ... 0.7	22 ... 26	Ø 12/31	24	32 x 45 x 91

\* For temperature applications around +50 °C, depending on the ambient temperature and the thermal liquid: use a cooling coil

Model	Order No.	Working temperature range °C	Heating capacity kW	Cooling capacity (kW) at bath temperature in °C (Medium: Ethanol)			Pump		Bath opening/ bath depth W x L / D cm	Filling volume liters	Dimensions W x D x H cm
				+20	0	-20	Pressure bar	Flowrate l/min			

#### Beer Forcing Test Bath

DD-1001F-BF	9 021 709	-38 ... +100	2	1	0.85	0.32	0.1 ... 0.7	8 ... 27	35 x 41/30	48 ... 56	45 x 64 x 95
DD-1201F-BF	9021719.D.N1	-40 ... +100	2	1.25	1.1	0.63	0.1 ... 0.7	8 ... 27	35 x 41/30	48 ... 56	45 x 64 x 95





### Immersion coolers, flow-through coolers – technical data

Model	Order No.	Working temperature range °C	Temperature stability °C	Cooling capacity (kW) at bath temperature in °C (Medium: Ethanol)			Immersion probe / flexible corrugated tubing cm	Dimensions W × D × H cm
				+20	0	-20		
FT200	9 650 820	-20 ... +30	-	0.25	0.15	0.04	9 × 4	18 × 27 × 39
FT400	9 650 840	-40 ... +30	-	0.45	0.30	0.14	12 × 5	20 × 30 × 43
FT900	9 650 890	-90 ... +30	-	0.3	0.27	0.24	65 × 1.5 flexible	38 × 55 × 60
FT402	9 650 842	-40 ... +30	±0.5	0.45	0.30	0.14	12 × 5	20 × 30 × 43
FT902	9 650 892	-90 ... +30	±1	0.3	0.27	0.24	65 × 1.5 flexible	38 × 55 × 60
FT903	9 650 893	-90 ... +30	±1	0.3	0.27	0.25	5.6 × 14.0	38 × 55 × 60
FD200	9 655 825	+10 ... +30	-	0.22	-	-	-	18 × 27 × 39

### Laboratory temperature controller – technical data

Model	Order No.	Working temperature range °C	Temperature stability °C	Max. connected load kW	Working sensor	Safety sensor	Dimensions W × D × H cm
LC4	9 700 140	-50 ... +350	< ±0.05	2	1 Pt100	1 Pt100	17 × 17 × 16
LC6	9 700 160	-100 ... +400	< ±0.03	3	2 Pt100	1 Pt100	21 × 18 × 18

# The **JULABO** advantages at a glance.

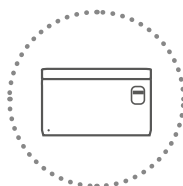
## JULABO temperature control solutions – high-precision and speed

JULABO products include high-quality temperature control solutions to cover the temperature range -95 °C to +400 °C.



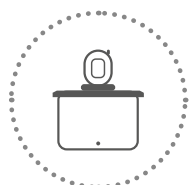
### Refrigerated circulators

JULABO refrigerated circulators are suitable for internal and external applications and can be used within the temperature range -95 °C to +200 °C.



### Water baths and shaking water baths

JULABO water baths and shaking water baths can be used for a variety of applications within the temperature range +18 °C to +99.9 °C.



### Heating circulators

Heating circulators are available in various designs including heating immersion circulators, heating circulators with open bath, and heating circulators to cover a temperature range from +20 °C to +300 °C.



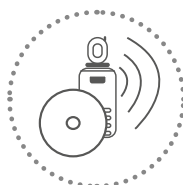
### Additional products

In addition, the JULABO product portfolio offers instruments for special requirements such as calibration baths, beer forcing test baths, immersion / flow-through coolers and temperature controllers.



### Highly dynamic temperature control systems

The highly dynamic temperature control systems from JULABO can be used for demanding temperature applications ranging from -93 °C to +400 °C. The PRESTO series offers unique high-performance specifications to meet these requirements.



### Wireless communication & software solutions

JULABO facilitates the automation of applications. The temperature control instruments can be comfortably controlled and monitored via PC.



### Recirculating coolers

The high degree of efficiency of JULABO recirculating coolers makes them an environmentally-friendly and economic alternative to tap water cooling in the temperature range -25 °C to +130 °C.



### Accessories

An extensive range of accessories allows for adaptation of JULABO products for research and industry use.

### Comprehensive service and on-site support

JULABO takes pride in offering customers expert advice for pairing the proper JULABO temperature control solution to their specific application. JULABO service and support options include installation and calibration, equipment qualification documentation and application training. These invaluable services ensure customer confidence in the operation and maintenance of any JULABO unit.

### Custom requirements - custom products

JULABO's wide range of products provide a solution for almost any application. If no standard product can be used for a specific requirement, our specialists will work out a custom solution together with you.



### **JULABO. Quality.**

Highest quality standards to ensure a long product life.



### **Green technology.**

Deliberately engineered with environmentally friendly materials and technologies.



### **Satisfied customers.**

11 subsidiaries and more than 100 partners worldwide guarantee fast and qualified JULABO support.



### **100 % checked.**

100 % testing. 100 % quality. Every JULABO product is shipped to customers after a successful final inspection.



### **Quick start.**

Individual JULABO consultation and detailed manuals get your instruments up and running on site.



### **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).



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# TempLab

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