

## PRODUCT PORTFOLIO

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



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



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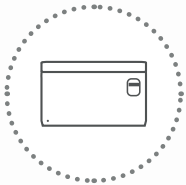
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# THE RIGHT PRODUCT FOR EVERY APPLI



## 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™

Accessories at  
www.julabo.com

## Saves energy.

CORIO comes with various modes for the refrigeration unit: permanently on, permanently off, or automatic on as refrigeration is needed. CORIO CD-600F to CORIO CD-1001F as well as CORIO CP-600F to CORIO CP-1001F are additionally equipped with automatic adjustment of the cooling capacity at the operating point to minimize power consumption and heat waste.

## Maintenance. Friendly.

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



## 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<br>°C | Cooling capacity (kW)<br>at bath temperature in °C |      |      | Pump            |                    | Bath opening/<br>bath depth<br>W x L / D<br>cm | Filling volume<br>liters | Dimensions<br>W x D x H<br>cm |
|-----------|---------------|---------------------------------|--|------|------|-----------------|--------------------|--|--------------------------|-------------------------------|
|           |               |                                 | +20  | 0    | -20  | Pressure<br>bar | Flow rate<br>l/min |  |                          |                               |
| CD-200F   | 9 012 701     | -20 ... +150                    | 0.22   | 0.17 | 0.06 | 0.35            | 15                 | 13 x 15 / 15                                   | 3 ... 4                  | 23 x 39 x 65                  |
| CP-200F   | 9 013 701     | -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                  |
| CD-201F   | 9 012 702     | -20 ... +150                    | 0.22   | 0.16 | 0.06 | 0.35            | 15                 | 13 x 15 / 15                                   | 3 ... 4                  | 44 x 41 x 44                  |
| CP-201F   | 9 013 702     | -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                  |
| CD-300F   | 9 012 703     | -25 ... +150                    | 0.31   | 0.28 | 0.11 | 0.35            | 15                 | 13 x 15 / 15                                   | 3 ... 4                  | 24 x 42 x 66                  |
| CP-300F   | 9 013 703     | -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                  |
| CD-310F   | 9 012 713.N1* | -30 ... +150                    | 0.31   | 0.28 | 0.13 | 0.35            | 15                 | 13 x 15 / 15                                   | 3 ... 4                  | 23 x 40 x 65                  |
| CP-310F   | 9 013 713.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                  |
| CD-450F   | 9 012 714.N1* | -30 ... +150                    | 0.45   | 0.38 | 0.17 | 0.35            | 15                 | 13 x 15 / 15                                   | 3 ... 4                  | 23 x 40 x 65                  |
| CP-450F   | 9 013 714.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                  |
| CD-449F   | 9 012 716.N1  | -32 ... +150                    | 0.45   | 0.36 | 0.21 | 0.35            | 15                 | 28 x 35 / 20                                   | 21 ... 30                | 37 x 59 x 69                  |
| CP-449F   | 9 013 716.N1  | -32 ... +200                    | 0.44   | 0.35 | 0.2  | 0.1 ... 0.7     | 8 ... 27           | 28 x 35 / 20                                   | 21 ... 30                | 37 x 59 x 69                  |
| CD-600F   | 9 012 704     | -35 ... +150                    | 0.6  | 0.46 | 0.18 | 0.35            | 15                 | 22 x 15 / 15                                   | 5 ... 7.5                | 33 x 47 x 69                  |
| CP-600F   | 9 013 704     | -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                  |
| CD-601F   | 9 012 705     | -40 ... +150                    | 0.6  | 0.46 | 0.18 | 0.35            | 15                 | 22 x 15 / 20                                   | 8 ... 10                 | 33 x 47 x 74                  |
| CP-601F   | 9 013 705     | -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                  |
| CD-900F   | 9 012 706     | -40 ... +150                    | 0.9  | 0.8  | 0.35 | 0.35            | 15                 | 26 x 35 / 20                                   | 21 ... 30                | 39 x 62 x 75                  |
| CP-900F   | 9 013 706     | -38 ... +200                    | 0.9  | 0.8  | 0.31 | 0.1 ... 0.7     | 8 ... 27           | 26 x 35 / 20                                   | 21 ... 30                | 39 x 62 x 75                  |
| CD-1000F  | 9 012 707     | -40 ... +150                    | 1  | 0.98 | 0.53 | 0.35            | 15                 | 18 x 13 / 15                                   | 5 ... 7.5                | 42 x 49 x 74                  |
| CP-1000F  | 9 013 707     | -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                  |
| CD-1000FW | 9 012 727     | -40 ... +150                    | 1  | 0.98 | 0.53 | 0.35            | 15                 | 18 x 13 / 15                                   | 5 ... 7.5                | 42 x 49 x 74                  |
| CP-1000FW | 9 013 727     | -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                  |
| CD-1001F  | 9 012 708     | -38 ... +100                    | 1  | 0.9  | 0.35 | 0.35            | 15                 | 35 x 41 / 30                                   | 42 ... 56                | 45 x 64 x 95                  |
| CP-1001F  | 9 013 708     | -38 ... +100                    | 1  | 0.9  | 0.32 | 0.1 ... 0.7     | 8 ... 27           | 35 x 41 / 30                                   | 42 ... 56                | 45 x 64 x 95                  |

\*also available with synthetic refrigerant (replace .N1 with .S1 in order number)



# 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 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<br>°C | Cooling capacity (kW)<br>at bath temperature in °C |      |      | Pump            |                    | Usable bath opening<br>W x L / D<br>cm | Filling volume<br>liters | Dimensions<br>W x L x H<br>cm |
|-----------|-----------------|---------------------------------|--|------|------|-----------------|--------------------|--|--------------------------|-------------------------------|
|           |                 |                                 | +20  | 0    | -20  | Pressure<br>bar | Flow rate<br>l/min |  |                          |                               |
| DD-200F   | 9 021 701       | -20 ... +200                    | 0.2  | 0.15 | 0.02 | 0.1 ... 0.7     | 8 ... 27           | 13x15/15                               | 3 ... 4                  | 23x39x65                      |
| DD-200F   | 9 021 701.D     | -20 ... +200                    | 0.2  | 0.15 | 0.02 | 0.1 ... 0.7     | 8 ... 27           | 13x15/15                               | 3 ... 4                  | 23x39x65                      |
| DD-200F   | 9 021 701.A     | -20 ... +200                    | 0.2  | 0.15 | 0.02 | 0.1 ... 0.7     | 8 ... 27           | 13x15/15                               | 3 ... 4                  | 23x39x65                      |
| DD-201F   | 9 021 702       | -20 ... +200                    | 0.2  | 0.15 | 0.02 | 0.1 ... 0.7     | 8 ... 27           | 13x15/15                               | 3 ... 4                  | 44x41x44                      |
| DD-201F   | 9 021 702.D     | -20 ... +200                    | 0.2  | 0.15 | 0.02 | 0.1 ... 0.7     | 8 ... 27           | 13x15/15                               | 3 ... 4                  | 44x41x44                      |
| DD-201F   | 9 021 702.A     | -20 ... +200                    | 0.2  | 0.15 | 0.02 | 0.1 ... 0.7     | 8 ... 27           | 13x15/15                               | 3 ... 4                  | 44x41x44                      |
| DD-300F   | 9 021 703       | -25 ... +200                    | 0.3  | 0.27 | 0.08 | 0.1 ... 0.7     | 8 ... 27           | 13x15/15                               | 3 ... 4                  | 24x42x66                      |
| DD-300F   | 9 021 703.D     | -25 ... +200                    | 0.3  | 0.27 | 0.08 | 0.1 ... 0.7     | 8 ... 27           | 13x15/15                               | 3 ... 4                  | 24x42x66                      |
| DD-300F   | 9 021 703.A     | -25 ... +200                    | 0.3  | 0.27 | 0.08 | 0.1 ... 0.7     | 8 ... 27           | 13x15/15                               | 3 ... 4                  | 24x42x66                      |
| DD-310F   | 9 021 713.N1*   | -30 ... +200                    | 0.3  | 0.27 | 0.12 | 0.1 ... 0.7     | 8 ... 27           | 13x15/15                               | 3 ... 4                  | 23 x 40 x 65                  |
| DD-310F   | 9 021 713.N1.A* | -30 ... +200                    | 0.3  | 0.27 | 0.12 | 0.1 ... 0.7     | 8 ... 27           | 13x15/15                               | 3 ... 4                  | 23 x 40 x 65                  |
| DD-310F   | 9 021 713.N1.D* | -30 ... +200                    | 0.3  | 0.27 | 0.12 | 0.1 ... 0.7     | 8 ... 27           | 13x15/15                               | 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           | 13x15/15                               | 3 ... 4                  | 23 x 40 x 65                  |
| DD-450F   | 9 021 714.N1.A* | -30 ... +200                    | 0.44   | 0.37 | 0.16 | 0.1 ... 0.7     | 8 ... 27           | 13x15/15                               | 3 ... 4                  | 23 x 40 x 65                  |
| DD-450F   | 9 021 714.N1.D* | -30 ... +200                    | 0.44   | 0.37 | 0.16 | 0.1 ... 0.7     | 8 ... 27           | 13x15/15                               | 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           | 28x35/20                               | 21 ... 30                | 37 x 59 x 69                  |
| DD-449F   | 9 021 716.N1.A  | -32 ... +200                    | 0.44   | 0.35 | 0.2  | 0.1 ... 0.7     | 8 ... 27           | 28x35/20                               | 21 ... 30                | 37 x 59 x 69                  |
| DD-449F   | 9 021 716.N1.D  | -32 ... +200                    | 0.44   | 0.35 | 0.2  | 0.1 ... 0.7     | 8 ... 27           | 28x35/20                               | 21 ... 30                | 37 x 59 x 69                  |
| DD-600F   | 9 021 704       | -35 ... +200                    | 0.6  | 0.44 | 0.16 | 0.1 ... 0.7     | 8 ... 27           | 22x15/15                               | 5 ... 7.5                | 33x47x69                      |
| DD-600F   | 9 021 704.D     | -35 ... +200                    | 0.6  | 0.44 | 0.16 | 0.1 ... 0.7     | 8 ... 27           | 22x15/15                               | 5 ... 7.5                | 33x47x69                      |
| DD-600F   | 9 021 704.A     | -35 ... +200                    | 0.6  | 0.44 | 0.16 | 0.1 ... 0.7     | 8 ... 27           | 22x15/15                               | 5 ... 7.5                | 33x47x69                      |
| DD-601F   | 9 021 705       | -35 ... +200                    | 0.6  | 0.44 | 0.16 | 0.1 ... 0.7     | 8 ... 27           | 22x20/15                               | 8 ... 10                 | 33x47x74                      |
| DD-601F   | 9 021 705.D     | -35 ... +200                    | 0.6  | 0.44 | 0.16 | 0.1 ... 0.7     | 8 ... 27           | 22x20/15                               | 8 ... 10                 | 33x47x74                      |
| DD-601F   | 9 021 705.A     | -35 ... +200                    | 0.6  | 0.44 | 0.16 | 0.1 ... 0.7     | 8 ... 27           | 22x20/15                               | 8 ... 10                 | 33x47x74                      |
| DD-900F   | 9 021 706       | -38 ... +200                    | 0.9  | 0.8  | 0.31 | 0.1 ... 0.7     | 8 ... 27           | 26x35/20                               | 21 ... 30                | 39x62x75                      |
| DD-900F   | 9 021 706.D     | -38 ... +200                    | 0.9  | 0.8  | 0.31 | 0.1 ... 0.7     | 8 ... 27           | 26x35/20                               | 21 ... 30                | 39x62x75                      |
| DD-900F   | 9 021 706.A     | -38 ... +200                    | 0.9  | 0.8  | 0.31 | 0.1 ... 0.7     | 8 ... 27           | 26x35/20                               | 21 ... 30                | 39x62x75                      |
| DD-1000F  | 9 021 707       | -50 ... +200                    | 1  | 0.96 | 0.51 | 0.1 ... 0.7     | 8 ... 27           | 18x13/15                               | 5 ... 7.5                | 42x49x74                      |
| DD-1000F  | 9 021 707.D     | -50 ... +200                    | 1  | 0.96 | 0.51 | 0.1 ... 0.7     | 8 ... 27           | 18x13/15                               | 5 ... 7.5                | 42x49x74                      |
| DD-1000F  | 9 021 707.A     | -50 ... +200                    | 1  | 0.96 | 0.51 | 0.1 ... 0.7     | 8 ... 27           | 18x13/15                               | 5 ... 7.5                | 42x49x74                      |
| DD-1000FW | 9 021 727       | -50 ... +200                    | 1  | 0.96 | 0.51 | 0.1 ... 0.7     | 8 ... 27           | 18x13/15                               | 5 ... 7.5                | 42x49x74                      |
| DD-1000FW | 9 021 727.D     | -50 ... +200                    | 1  | 0.96 | 0.51 | 0.1 ... 0.7     | 8 ... 27           | 18x13/15                               | 5 ... 7.5                | 42x49x74                      |
| DD-1000FW | 9 021 727.A     | -50 ... +200                    | 1  | 0.96 | 0.51 | 0.1 ... 0.7     | 8 ... 27           | 18x13/15                               | 5 ... 7.5                | 42x49x74                      |
| DD-1001F  | 9 021 708       | -38 ... +100                    | 1  | 0.85 | 0.32 | 0.1 ... 0.7     | 8 ... 27           | 35x41/30                               | 42 ... 56                | 45x64x95                      |
| DD-1001F  | 9 021 708.D     | -38 ... +100                    | 1  | 0.85 | 0.32 | 0.1 ... 0.7     | 8 ... 27           | 35x41/30                               | 42 ... 56                | 45x64x95                      |
| DD-1001F  | 9 021 708.A     | -38 ... +100                    | 1  | 0.85 | 0.32 | 0.1 ... 0.7     | 8 ... 27           | 35x41/30                               | 42 ... 56                | 45x64x95                      |

\*also available with synthetic refrigerant (replace .N1 with .S1 in order number)



# 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

The refrigerated circulators of the MAGIO MS 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<br>°C | Cooling capacity (kW)<br>at bath temperature in °C |      |      | Pump            |                |                    | Usable bath opening<br>W x L / D<br>cm | Filling volume<br>liters | Dimensions<br>W x L x H<br>cm |
|-----------|---------------|---------------------------------|--|------|------|-----------------|----------------|--------------------|--|--------------------------|-------------------------------|
|           |               |                                 | +20  | 0    | -20  | Pressure<br>bar | Suction<br>bar | Flow rate<br>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                           | 21 ... 30                | 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-900F   | 9 032 706     | -38 ... +200                    | 0.9  | 0.8  | 0.31 | 0.24 ... 0.92   | 0.03 ... 0.4   | 16 ... 31          | 26 x 35 / 20                           | 21 ... 30                | 39 x 62 x 75                  |
| 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-1000FW | 9 032 727     | -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                  |

\*also available with synthetic refrigerant (replace .N1 with .S1 in order number)

## 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<br>°C | Cooling capacity (kW)<br>at bath temperature in °C |      |      | Pressure<br>bar | Pump           |                      | Usable bath opening<br>W × L / D<br>cm | Filling volume<br>liters | Dimensions<br>W × L × H<br>cm |
|-------|-----------|---------------------------------|--|------|------|-----------------|----------------|----------------------|--|--------------------------|-------------------------------|
|       |           |                                 | +20  | 0    | -20  |                 | Suction<br>bar | Flow rate<br>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<br>°C | Cooling capacity (kW) at bath temperature in °C |      |      | Pressure<br>bar | Pump           |                      | Usable bath opening<br>W x L / D<br>cm | Filling volume<br>liters | Dimensions<br>W x L x H<br>cm |
|----------|---------------|---------------------------------|---|------|------|-----------------|----------------|----------------------|--|--------------------------|-------------------------------|
|          |               |                                 | +20   | 0    | -20  |                 | Suction<br>bar | Flow rate<br>l / min |  |                          |                               |
| FP51-SL  | 9 352 751     | -51 ... +200                    | 2.0   | 1.5  | 1.0  | 0.4 ... 0.7     | 0.2 ... 0.4    | 22 ... 26            | 18 x 12 / 20                           | 7.5 ... 12               | 46 x 55 x 89                  |
| 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<br>°C | Temperature stability<br>°C | Heating capacity<br>kW | Pressure<br>bar | Pump Suction<br>bar | Flow rate<br>l/min | Usable bath opening<br>W × L / D<br>cm | Filling volume<br>liters | Dimensions<br>W × L × H<br>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

Accessories at  
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online at  
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### Heating circulators with open baths – technical data

| Model | Order No. | Working temperature range<br>°C | Temperature stability<br>°C | Heating capacity<br>kW | Pressure<br>bar | Pump Suction<br>bar | Flow rate<br>l/min | Usable bath opening<br>W × L / D<br>cm | Filling volume<br>liters | Dimensions<br>W × L × H<br>cm |
|-------|-----------|---------------------------------|-----------------------------|------------------------|-----------------|---------------------|--------------------|--|--------------------------|-------------------------------|
|-------|-----------|---------------------------------|-----------------------------|------------------------|-----------------|---------------------|--------------------|--|--------------------------|-------------------------------|

#### 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



Product brochure  
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[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 -92 °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 -92 °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

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FORTE HT without  
cooling unit



FORTE HT with  
cooling unit



# PRESTO™



### Highly dynamic temperature control systems – technical data

| Model         | Order No.    | Working temperature range<br>°C | Temperature stability<br>°C | Heating capacity<br>kW | Cooling capacity (kW) at bath temperature in °C |      |      | Pump            |                    | Cooling of refrigerant unit | Dimensions W × D × H<br>cm |
|---------------|--------------|---------------------------------|-----------------------------|------------------------|---|------|------|-----------------|--------------------|-----------------------------|----------------------------|
|               |              |                                 |                             |                        | +20   | 0    | -20  | Pressure<br>bar | Flow rate<br>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 | 0.5             | 25                 | 1-st. Air                   | 33 × 75 × 67               |
| A40           | 9 420 401    | -40 ... +250                    | ±0.01 ... ±0.05             | 2.7                    | 1.2   | 0.9  | 0.6  | 0.3 ... 1.7     | 16 ... 40          | 1-st. Air                   | 33 × 59 × 67               |
| W40           | 9 421 401    | -40 ... +250                    | ±0.01 ... ±0.05             | 2.7                    | 1.2   | 1.   | 0.55 | 0.3 ... 1.7     | 16 ... 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 | 0.3 ... 1.6     | 22 ... 51          | 1-st. Air                   | 33 × 75 × 67               |
| W41           | 9 421 411.N1 | -45 ... +250                    | ±0.01 ... ±0.05             | 2.7                    | 3.5   | 3.3  | 0.46 | 0.3 ... 1.6     | 22 ... 51          | 1-st. Water                 | 33 × 75 × 67               |
| A45           | 9 420 452    | -45 ... +250                    | ±0.05 ... ±0.1              | 6                      | 3.5   | 3.3  | 1.8  | 0.48 ... 3.2    | 35 ... 76          | 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  | 0.48 ... 3.2    | 35 ... 76          | 1-st. Air                   | 53 × 66.5 × 126            |
| W50           | 9 421 502    | -50 ... +250                    | ±0.05 ... ±0.1              | 6                      | 7.5   | 6.5  | 3    | 0.48 ... 3.2    | 35 ... 76          | 1-st. Water                 | 53 × 66.5 × 126            |
| W50t          | 9 421 502.T  | -50 ... +250                    | ±0.05 ... ±0.1              | 12                     | 7.5   | 6.5  | 3    | 0.48 ... 3.2    | 35 ... 76          | 1-st. Water                 | 53 × 66.5 × 126            |
| W55           | 9 421 552    | -55 ... +250                    | ±0.05 ... ±0.2              | 15                     | 15  | 10   | 4    | 0.48 ... 3.2    | 35 ... 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 | 0.48 ... 3.2    | 35 ... 80          | 1-st. Water                 | 60 × 94 × 164              |
| W56x          | 9 421 563.S1 | -45 ... +150                    | ±0.05 ... ±0.5              | 27                     | 25.8  | 23.1 | 11.5 | 0.8 ... 5.5     | 18 ... 70          | 1-st. Water                 | 60 × 94 × 164              |
| A70           | 9 420 701.N1 | -75 ... +250                    | ±0.01 ... ±0.05             | 1.8                    | 1   | 0.91 | 0.84 | 0.3 ... 1.7     | 16 ... 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  | 0.3 ... 1.7     | 16 ... 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  | 0.3 ... 1.7     | 16 ... 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  | 0.3 ... 1.7     | 16 ... 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  | 0.3 ... 1.7     | 16 ... 40          | 2-st. Water                 | 43 × 65 × 126              |
| A85           | 9 420 852    | -85 ... +250                    | ±0.05 ... ±0.1              | 6                      | 2.5   | 2.4  | 2.4  | 0.48 ... 3.2    | 35 ... 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  | 0.48 ... 3.2    | 35 ... 80          | 2-st. Air                   | 61 × 108 × 125             |
| W85           | 9 421 852    | -85 ... +250                    | ±0.05 ... ±0.1              | 6                      | 2.5   | 2.4  | 2.4  | 0.48 ... 3.2    | 35 ... 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  | 0.48 ... 3.2    | 35 ... 80          | 2-st. Water                 | 61 × 84.5 × 125            |
| W91           | 9 421 912    | -91 ... +250                    | ±0.05 ... ±0.2              | 18                     | 11  | 11   | 11   | 0.5 ... 3.0     | 26 ... 80          | 2-st. Water                 | 95 × 127 × 190             |
| W91tt         | 9 421 912.TT | -91 ... +250                    | ±0.05 ... ±0.2              | 36                     | 11  | 11   | 11   | 0.5 ... 3.0     | 26 ... 80          | 2-st. Water                 | 95 × 127 × 190             |
| W91x          | 9 421 913    | -91 ... +250                    | ±0.05 ... ±0.2              | 18                     | 11  | 11   | 11   | 0.8 ... 5.5     | 18 ... 70          | 2-st. Water                 | 95 × 127 × 190             |
| W91ttx        | 9 421 913.TT | -91 ... +250                    | ±0.05 ... ±0.2              | 36                     | 11  | 11   | 11   | 0.8 ... 5.5     | 18 ... 70          | 2-st. Water                 | 95 × 127 × 190             |
| W92           | 9 421 922    | -92 ... +250                    | ±0.05 ... ±0.2              | 18                     | 27  | 20   | 11   | 0.5 ... 3.0     | 26 ... 80          | 2-st. Water                 | 95 × 127 × 190             |
| W92tt         | 9 421 922.TT | -92 ... +250                    | ±0.05 ... ±0.2              | 36                     | 27  | 20   | 11   | 0.5 ... 3.0     | 26 ... 80          | 2-st. Water                 | 95 × 127 × 190             |
| W92x          | 9 421 923    | -92 ... +250                    | ±0.05 ... ±0.2              | 18                     | 27  | 20   | 11   | 0.8 ... 5.5     | 18 ... 70          | 2-st. Water                 | 95 × 127 × 190             |
| W92ttx        | 9 421 923.TT | -92 ... +250                    | ±0.05 ... ±0.2              | 36                     | 27  | 20   | 11   | 0.8 ... 5.5     | 18 ... 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 | 0.5 ... 3       | 26 ... 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 | 0.8 ... 5.5     | 18 ... 70          | 2-st. Water                 | 93 × 148 × 192             |

\*also available with natural refrigerant (replace .S1 with .N1 in order number)

| Model           | Order No. | Working temperature range<br>°C | Temperature stability external<br>°C | Heating capacity<br>kW | Cooling capacity (water +20 °C)<br>kW, max. | Pump            |                    | Dimensions Circulator<br>W × D × H<br>cm | Dimensions Control electronics<br>W × D × H<br>cm |
|-----------------|-----------|---------------------------------|--------------------------------------|------------------------|---|-----------------|--------------------|--|---|
|                 |           |                                 |                                      |                        |   | Pressure<br>bar | Flow rate<br>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<br>°C | Temperature stability<br>°C | Cooling capacity (kW) at bath temperature in °C |   |     | Pump            |                    | Cooling of refrigerant unit | Filling volume<br>liters | Dimensions<br>W x D x H<br>cm |
|-------|-----------|---------------------------------|-----------------------------|---|---|-----|-----------------|--------------------|-----------------------------|--------------------------|-------------------------------|
|       |           |                                 |                             | +20   | 0 | -20 | Pressure<br>bar | Flow rate<br>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 |
|----------------------------|------------------|-------------|--|------|---|---|-----|-----|-----|-----|--------------|

### 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



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

## 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



### Recirculating coolers and chillers – technical data

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

#### Calibration Baths

|                |                  |              |   |      |      |      |             |           |         |    |              |
|----------------|------------------|--------------|---|------|------|------|-------------|-----------|---------|----|--------------|
| <b>SL-8K*</b>  | <b>9 352 508</b> | +50 ... +300 | 3 | -    | -    | -    | 0.4 ... 0.7 | 22 ... 26 | Ø 12/17 | 8  | 22 x 46 x 47 |
| <b>SL-14K*</b> | <b>9 352 514</b> | +50 ... +300 | 3 | -    | -    | -    | 0.4 ... 0.7 | 22 ... 26 | Ø 12/31 | 14 | 22 x 46 x 61 |
| <b>FK30-SL</b> | <b>9 352 627</b> | -30 ... +200 | 2 | 0.46 | 0.34 | 0.15 | 0.4 ... 0.7 | 22 ... 26 | Ø 12/17 | 14 | 32 x 45 x 79 |
| <b>FK31-SL</b> | <b>9 352 628</b> | -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<br>°C | Heating capacity<br>kW | Cooling capacity (kW) at bath temperature in °C (Medium: Ethanol) |   |     | Pump            |                   | Bath opening/<br>bath depth<br>W x L / D<br>cm | Filling volume<br>liters | Dimensions<br>W x D x H<br>cm |
|-------|-----------|---------------------------------|------------------------|---|---|-----|-----------------|-------------------|--|--------------------------|-------------------------------|
|       |           |                                 |                        | +20   | 0 | -20 | Pressure<br>bar | Flowrate<br>l/min |  |                          |                               |

#### Beer Forcing Test Bath

|                    |                  |              |   |   |      |      |             |          |            |           |              |
|--------------------|------------------|--------------|---|---|------|------|-------------|----------|------------|-----------|--------------|
| <b>DD-1001F-BF</b> | <b>9 021 709</b> | -38 ... +100 | 2 | 1 | 0.85 | 0.32 | 0.1 ... 0.7 | 8 ... 27 | 35 x 41/30 | 42 ... 56 | 45 x 64 x 95 |
|--------------------|------------------|--------------|---|---|------|------|-------------|----------|------------|-----------|--------------|





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

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

| Model | Order No. | Working temperature range<br>°C | Temperature stability<br>°C | Cooling capacity (kW) at bath temperature in °C (Medium: Ethanol) |      |      | Immersion probe / flexible corrugated tubing<br>cm | Dimensions W × D × H<br>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<br>°C | Temperature stability<br>°C | Max. connected load<br>kW | Working sensor | Safety sensor | Dimensions W × D × H<br>cm |
|-------|-----------|---------------------------------|-----------------------------|---------------------------|----------------|---------------|----------------------------|
|       |           |                                 |                             |                           |                |               |                            |
| LC6   | 9 700 160 | -100 ... +400                   | < ±0.03                     | 3                         | 2 Pt100        | 1 Pt100       | 21 × 18 × 18               |

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

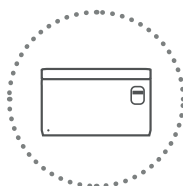
## JULABO temperature control solutions – high-precision and speed

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



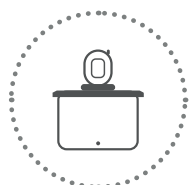
### Refrigerated circulators

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.



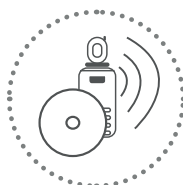
### Additional products

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.



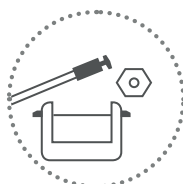
### Wireless communication & software solutions

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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