DYNEO DD-1001F-BF DYNEO DD Beer Forcing Test Refrigerated-Heating Circulating Bath

The JULABO Beer Forcing Test Bath in conjunction with a photometer determines the product life of beer before clouding. The simulated aging process is achieved through a programmable temperature profile, which is repeated, until the first clouding develops.

Your advantages

• Automatic cycles of temperature ramps simulate aging
• USB connection
• Pre-programmed temperature profiles for forcing test
• For internal and external applications
• Program modification possible at any time
• Removable ventilation grid
• Integrated meter for reproducible time sequence
• Space-saving cooling coil design yields more usable space in the bath tank
• Large bath opening with insert for 20 bottles, 0.5 liters each (Racks for other bottle sizes on request)
• Circulator for working temperatures from -95 °C from +200 °C
• Removable Plexiglass® cover
• All products feature user-friendly, intuitive operation
• Extra bright displays, easy to read from a distance
• State-of-the-art control technology for quick and highly precise results
• Many professional functions for adjusting control paramenters, temperature calibration, temperature profiles etc.
• For internal and external applications
• Powerful and infinitely adjustable pressure pump
• Flow rate 27 l/min, pressure 0.7 bar
• Large color TFT display, multilingual interface
• Central rotary knob (controller) simplifies operation
• Integrated programmer
• Integrated external Pt100 connection
• RS232 interface or analog interfaces (optional)
• Powerful cooling machines
• Optimized cooling coil design saves space in the bath tank
• Bath cover included with delivery
• Integrated drain makes emptying liquid easy and safe.

Technical data

Available voltage versions	
Order No.	9 021 709
Available voltage versions:	
9 021 709.04	230V/50-60Hz (UK Plug Type BS1363A)
9 021 709.05	230V/50-60Hz (CH Plug Type SEV 1011)
9 021 709.33	230V/50-60Hz (Schuko Plug - CEE 7/4 Plug Type F)
9 021 709.33.chn	230V/50-60Hz (CN Plug)

Bath	
Bath tank	Stainless steel
Bath cover	integrated
Usable bath opening cm (W x L / D)	35 x 41 / 30

Cooling	
Cooling of compressor	1-stage Air

Other	
Classification	Classification III (FL)
Pump function	Pressure Pump
Pump type	Immersion Pump

Electronics	
External pt100 sensor connection	integrated
Integrated programmer	8x60 steps

Dimensions and volumes	
Weight kg	73.7
Barbed fittings inner diameter	8/12 mm

Temperature control	PID2
Absolute temperature calibration	3 Point Calibration
Temperature display	3.5" TFT Display
Temperature setting	Shaft Encoder
Electronic Timer hr:min	99 ... 59

Dimensions cm (W × L × H)	45 x 64 x 95
Filling volume l	42 ... 56
Pump connections	M16x1 male

Temperature values

Setting the resolution of the temperature display °C	0.01
Working temperature range °C	-38 ... +100
Temperature stability °C	±0.01
Ambient temperature °C	+5 ... +40

Performance values

230V/50-60Hz (UK Plug Type BS1363A)

200V/50Hz

Heating capacity kW	1.5

Cooling capacity (Ethanol)

°C	20	10	0	-10	-20	-30
kW	1	0.95	0.85	0.6	0.32	0.12

Viscosity max. cST	50
Refrigerant	R449A
Filling volume g	170
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.237
Pump capacity flow rate l/min	8 ... 27
Pump capacity flow pressure bar	0.1 ... 0.7

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230V/50-60Hz (CH Plug Type SEV 1011)

200V/50Hz

Heating capacity kW	1.8

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230V/50Hz

Heating capacity kW	2

Cooling capacity (Ethanol)						
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230V/50-60Hz (CN Plug)

200V/50Hz

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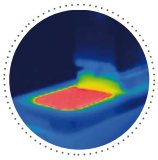
All Benefits

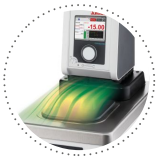
More bath.
Designed for more comfort. Thanks to the recessed cooling coil, the internal bath provides more space.

Space saving. Free up space.
Place your JULABO Circulator right next to an application, another unit, or wall. That saves space. This is made possible by eliminating vents and connections on the sides.



Solid.
Minimized energy loss through high-quality insulation.

Tidy.
The special drain tap for easy draining of bath fluids without tools.



Condensation protection.
Superb design solution. Integrated ventilation directs air over the bath lid and minimizes condensation.

Green technology.
Development consistently applied environmentally friendly materials and technologies.

Quick start.
Individual JULABO consultation and comprehensive manuals at your disposal.

Services 24/7.
Around the clock availability. You can find suitable accessories, data sheets, manuals, case studies, and more at www.julabo.com.

Highly precise
PID Temperature control with drift compensation and adjustable control parameters, temperature stability ±0.01...±0.02 °C

Turn. Push. Go.
Easy operation of all parameters using the central controller.

USB.
Remote control made easy using the integrated USB interface.

RS232.
Connection using the optional RS232 interface.

Analog I/O.
Analog interfaces for integration into process control systems (optional).

Programmer. Integrated.
The integrated internal programmer makes it possible to automatically run temperature time profiles.

100% Checked.
100% testing. 100% quality. Each JULABO Circulator undergoes thorough quality testing before leaving the factory.

JULABO. Quality.
Highest standards of quality for a long product life.

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

Handle with ease.
Makes day-to-day work easy. Comfortably move your JULABO Circulator around by using the ergonomic handles (front and rear).

Wide range.
Refrigerated and heating circulator in various combinations, circulator in various sizes. Maximum flexibility through a large selection of accessories.

Brilliance. In color.
Large color display with vivid luminance is easy to read, even from a large distance.

Information. Everything clear.
Information in plain text on a large color screen.

Multi-lingual.
Operation in multiple languages.

Process stability.
Early warning - visual and acoustic - of critical states increases process stability.

Powerful. Adjustable.
Strong pressure pump, continuously adjustable.

ATC3. Calibration.
'Absolute Temperature Calibration' for compensating a physically caused temperature difference, 3-point calibration.

Connection. Easy.
Inclined pump connections (M16×1) facilitate the connection of applications. Each unit includes 2 barbed fittings of 8/12 mm diameter each.

100 % Cooling capacity
'Active Cooling Control' for cooling available throughout the entire working temperature range, fast cool-down even at higher temperatures

Highest measuring accuracy
'Absolute Temperature Calibration' for manual compensation of a temperature difference, 3-point calibration

Temperature. Under control.
External Pt100 sensor connection for precise measurement and control directly in the external application.

Fill level. Monitored.
Fill level indicator on the display for heat-transfer liquid.

Process. Under control.
Full regulation of the dynamics control, access to all important control parameters for individual process optimization.

Stable. Mobile.
Rubber feet keep JULABO Circulators standing firm. Larger and more powerful units also have integrated rollers for easy handling.