Product data sheet

DYNEO DD-1000F Refrigerated - Heating Circulator

DYNEO DD heating circulators for internal and external applications are equipped with closed bath tanks. The tanks are well insulated and include a coil for counter-cooling. An integrated drain tap makes emptying the tank safe and clean. The multilingual 3.5-inch color display and unique rotary knob provide for straightforward and intuitive operation.

Optional analog and digital interface
DYNEO thermostats can optionally be equipped with analogue and digital interfaces. To request the options, order number must be extended with .d for the digital and .a for the analog interface (9XXX XXXX.A / 9XXX XXX.D)

Your advantages

- USB connection
- Removable ventilation grid
- Space-saving cooling coil design provides more usable space in the bath tank
- For internal and external applications
- Powerful and infinitely adjustable pressure pump
- Flow rate 27 l/min, pressure 0.7 bar
- Easy switching between internal and external circulation
- 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.	9 021 707
Available voltage versions:	
9 021 707.02	115V/60Hz (Nema N5-20 Plug)
9 021 707.04	230V/50-60Hz (UK Plug Type BS1363A)
9 021 707.05	230V/50-60Hz (CH Plug Type SEV 1011)
9 021 707.33	230V/50-60Hz (Schuko Plug - CEE 7/4 Plug Type F)
9 021 707.33.chn	230V/50-60Hz (CN Plug)

Bath	
Bath tank	Stainless steel
Bath cover	integrated
Usable bath opening in. (W x L / D)	7.1 x 5.1 / 5.9

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
Temperature control	PID2
Absolute temperature calibration	3 Point Calibration
Temperature displayTemperature display	3.5" TFT Display

Dimensions and volumes	
Weight lbs	112.9
Barbed fittings inner diameter	8/12 mm
Dimensions in. (W × L × H)	16.5 x 19.3 x 27.6
Filling volume l	5 ... 7.5
Pump connections	M16x1 male

Temperature settingTemperature setting	Shaft Encoder
Electronic Timer hr:min	99 ... 59

Temperature values	
Setting the resolution of the temperature display °C	0.01
Working temperature range °C	-50 ... 200
Temperature stability °C	±0.01
Ambient temperature °C	5 ... 40

Performance values

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

115V/60Hz								
Heating capacity kW	1							
Cooling capacity (Ethanol)								
°C	20	10	0	-10	-20	-30	-40	
kW	1	1	0.96	0.73	0.51	0.25	0.11	
Viscosity max. cST	50							
Refrigerant	R449A							
Filling volume g	190							
Global Warming Potential for R449A	1397							
Carbon dioxide equivalent t	0.265							
Pump capacity flow rate l/min	8 ... 27							
Pump capacity flow pressure psi	1.5 ... 10.2							

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

200V/50Hz								
Heating capacity kW	1.5							
Cooling capacity (Ethanol)								
°C	20	10	0	-10	-20	-30	-40	
kW	1	1	0.96	0.73	0.51	0.25	0.11	
Viscosity max. cST	50							
Refrigerant	R449A							
Filling volume g	190							
Global Warming Potential for R449A	1397							
Carbon dioxide equivalent t	0.265							
Pump capacity flow rate l/min	8 ... 27							
Pump capacity flow pressure psi	1.5 ... 10.2							

200V/60Hz								
Heating capacity kW	1.5							
Cooling capacity (Ethanol)								
°C	20	10	0	-10	-20	-30	-40	
kW	1	1	0.96	0.73	0.51	0.25	0.11	
Viscosity max. cST	50							
Refrigerant	R449A							
Filling volume g	190							
Global Warming Potential for R449A	1397							
Carbon dioxide equivalent t	0.265							
Pump capacity flow rate l/min	8 ... 27							
Pump capacity flow pressure psi	1.5 ... 10.2							

230V/50Hz								
Heating capacity kW	2							
Cooling capacity (Ethanol)								
°C	20	10	0	-10	-20	-30	-40	
kW	1	1	0.96	0.73	0.51	0.25	0.11	
Viscosity max. cST	50							

230V/60Hz								
Heating capacity kW	2							
Cooling capacity (Ethanol)								
°C	20	10	0	-10	-20	-30	-40	
kW	1	1	0.96	0.73	0.51	0.25	0.11	
Viscosity max. cST	50							

Refrigerant	R449A
Filling volume g	190
Global Warming Potential for R449A	1397
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230V/50-60Hz (CH Plug Type SEV 1011)

200V/50Hz

Heating capacity kW	1.5

Cooling capacity (Ethanol)

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kW	1	1	0.96	0.73	0.51	0.25	0.11

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200V/60Hz

Heating capacity kW	1.5

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kW	1	1	0.96	0.73	0.51	0.25	0.11

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Pump capacity flow rate l/min	8 ... 27
Pump capacity flow pressure psi	1.5 ... 10.2

230V/50Hz

Heating capacity kW	2

Cooling capacity (Ethanol)

°C	20	10	0	-10	-20	-30	-40
kW	1	1	0.96	0.73	0.51	0.27	0.11

Viscosity max. cST	50
Refrigerant	R449A
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230V/60Hz

Heating capacity kW	2

Cooling capacity (Ethanol)

°C	20	10	0	-10	-20	-30	-40
kW	1	1	0.96	0.73	0.51	0.25	0.11

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230V/50-60Hz (Schuko Plug - CEE 7/4 Plug Type F)

200V/50Hz

Heating capacity kW	1.5

Cooling capacity (Ethanol)

°C	20	10	0	-10	-20	-30	-40
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230V/50Hz

Heating capacity kW	2

Cooling capacity (Ethanol)

°C	20	10	0	-10	-20	-30	-40
kW	1	1	0.96	0.73	0.51	0.25	0.11

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230V/60Hz

Heating capacity kW	2

Cooling capacity (Ethanol)

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kW	1	1	0.96	0.73	0.51	0.25	0.11

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230V/50-60Hz (CN Plug)

200V/50Hz

Heating capacity kW	1.5

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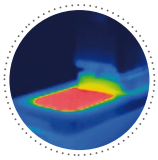
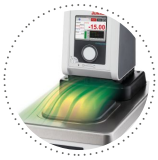
All Benefits

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.

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

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

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

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

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

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

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

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

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

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

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

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

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

RS232.
Standard connection using the serial RS232 interface.

Multi-lingual.
Operation in multiple languages.

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

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

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

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 control of the dynamic, access to all important control parameters for individual process optimization.

Stable. Mobile.