

## DYNEO DD-300F 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

<b>Available voltage versions</b>		<b>Bath</b>	
Order No.	9 021 703	Bath tank	Stainless steel
Available voltage versions:		Bath cover	integrated
9 021 703.01	100V/50-60Hz (Nema N5-15 Plug)	Usable bath opening in. (W x L / D)	5.1 x 5.9 / 5.9
9 021 703.02	115V/60Hz (Nema N5-15 Plug)		
9 021 703.03	230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F)		
9 021 703.03.chn	230V/50Hz (CN Plug)		
9 021 703.04	230V/50Hz (UK Plug Type BS1363A)		
9 021 703.05	230V/50Hz (CH Plug Type SEV 1011)		
9 021 703.13	230V/60Hz (Nema N6-20 Plug)		
<b>Cooling</b>		<b>Other</b>	
Cooling of compressor	1-stage Air	Classification	Classification III (FL)
		Pump function	Pressure Pump
		Pump type	Immersion Pump
<b>Electronics</b>		<b>Dimensions and volumes</b>	
External pt100 sensor connection	integrated	Weight lbs	61.1
Integrated programmer	8x60 steps	Barbed fittings inner diameter	8/12 mm
Temperature control	PID2	Dimensions in. (W x L x H)	9.4 x 16.5 x 26

Absolute temperature calibration	3 Point Calibration	Filling volume l	3 ... 4
Temperature display	3.5" TFT Display	Pump connections	M16x1 male
Temperature 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	-25 ... +200
Temperature stability °C	±0.01
Ambient temperature °C	+5.0 ... +40.0

### Performance values

#### 100V/50-60Hz (Nema N5-15 Plug)

100V/50Hz							100V/60Hz						
Heating capacity kW							0.8						
Cooling capacity (Ethanol)							Cooling capacity (Ethanol)						
°C	200	20	10	0	-10	-20	°C	200	20	10	0	-10	-20
kW	0.3	0.3	0.3	0.27	0.19	0.08	kW	0.3	0.3	0.3	0.27	0.19	0.08
Viscosity max. cST							50						
Refrigerant							R134a						
Filling volume g							100						
Global Warming Potential for R134a							1430						
Carbon dioxide equivalent t							0.143						
Pump capacity flow rate l/min							8 ... 27						
Pump capacity flow pressure psi							1.5 ... 10.2						

#### 115V/60Hz (Nema N5-15 Plug)

115V/60Hz													
Heating capacity kW							1						
Cooling capacity (Ethanol)							Cooling capacity (Ethanol)						
°C	200	20	10	0	-10	-20	°C	200	20	10	0	-10	-20
kW	0.3	0.3	0.3	0.27	0.19	0.08	kW	0.3	0.3	0.3	0.27	0.19	0.08
Viscosity max. cST							50						
Refrigerant							R134a						
Filling volume g							100						
Global Warming Potential for R134a							1430						
Carbon dioxide equivalent t							0.143						
Pump capacity flow rate l/min							8 ... 27						
Pump capacity flow pressure psi							1.5 ... 10.2						

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

230V/50Hz	
Heating capacity kW	2

Cooling capacity (Ethanol)						
°C	200	20	10	0	-10	-20
kW	0.3	0.3	0.3	0.27	0.19	0.08
Viscosity max. cST	50					
Refrigerant	R134a					
Filling volume g	100					
Global Warming Potential for R134a	1430					
Carbon dioxide equivalent t	0.143					
Pump capacity flow rate l/min	8 ... 27					
Pump capacity flow pressure psi	1.5 ... 10.2					

### 230V/50Hz (CN Plug)

230V/50Hz						
Heating capacity kW						
2						
Cooling capacity (Ethanol)						
°C	200	20	10	0	-10	-20
kW	0.3	0.3	0.3	0.27	0.19	0.08
Viscosity max. cST	50					
Refrigerant	R134a					
Filling volume g	100					
Global Warming Potential for R134a	1430					
Carbon dioxide equivalent t	0.143					
Pump capacity flow rate l/min	8 ... 27					
Pump capacity flow pressure psi	1.5 ... 10.2					

### 230V/50Hz (UK Plug Type BS1363A)

230V/50Hz						
Heating capacity kW						
2						
Cooling capacity (Ethanol)						
°C	200	20	10	0	-10	-20
kW	0.3	0.3	0.3	0.27	0.19	0.08
Viscosity max. cST	50					
Refrigerant	R134a					
Filling volume g	100					
Global Warming Potential for R134a	1430					
Carbon dioxide equivalent t	0.143					
Pump capacity flow rate l/min	8 ... 27					
Pump capacity flow pressure psi	1.5 ... 10.2					

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

230V/50Hz						
Heating capacity kW						
2						
Cooling capacity (Ethanol)						
°C	200	20	10	0	-10	-20
kW	0.3	0.3	0.3	0.27	0.19	0.08

Viscosity max. cST	50
Refrigerant	R134a
Filling volume g	100
Global Warming Potential for R134a	1430
Carbon dioxide equivalent t	0.143
Pump capacity flow rate l/min	8 ... 27
Pump capacity flow pressure psi	1.5 ... 10.2

230V/60Hz (Nema N6-20 Plug)

230V/60Hz						
Heating capacity kW	2					
Cooling capacity (Ethanol)						
°C	200	20	10	0	-10	-20
kW	0.3	0.3	0.3	0.27	0.19	0.08
Viscosity max. cST	50					
Refrigerant	R134a					
Filling volume g	100					
Global Warming Potential for R134a	1430					
Carbon dioxide equivalent t	0.143					
Pump capacity flow rate l/min	8 ... 27					
Pump capacity flow pressure psi	1.5 ... 10.2					

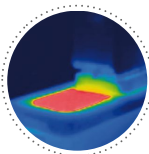
All Benefits



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



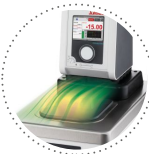
**Space saving. Free up space.**  
Place your JULABO Circulator right next to an application, another unit, or wall. That saves space. This is made possible by eliminating vents and connections on the sides.



**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.



**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](http://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  $\pm 0.01 \dots \pm 0.02$  °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.**