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 yields 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.	9 021 703
Available voltage versions:	
9 021 703.01	
9 021 703.02	
9 021 703.03	
9 021 703.03.chn	
9 021 703.04	
9 021 703.05	
9 021 703.13	

Bath	
Bath tank	Stainless steel
Bath cover	integrated
Usable bath opening cm (W x L / D)	13 x 15 / 15

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

Dimensions and volumes	
Weight kg	27.7
Barbed fittings inner diameter	8/12 mm
Dimensions cm (W × L × H)	24 x 42 x 66
Filling volume l	3 ... 4

Temperature display	3.5" TFT Display
Temperature setting	Shaft Encoder
Electronic Timer hr:min	99 ... 59

Pump connections	M16x1 male

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/50Hz

Heating capacity kW	0.8
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 bar	0.1 ... 0.7

100V/60Hz

Heating capacity kW	0.8
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 bar	0.1 ... 0.7

115V/60Hz

Heating capacity kW	1
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 bar	0.1 ... 0.7

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 bar	0.1 ... 0.7

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 bar	0.1 ... 0.7

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 bar	0.1 ... 0.7

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 bar	0.1 ... 0.7

230V/60Hz

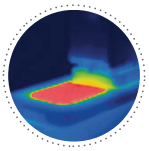
Heating capacity kW	2
Cooling capacity (Ethanol)	

°C	200	20	10	0	-10	-20
kW	0.3	0.3	0.3	0.27	0.19	0.08

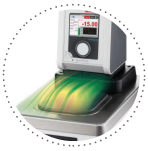
Viscosity max. cST	50
Refrigerant	R134a
Filling volume g	100
Global Warming Potential for R134a	1430
Carbon dioxide equivalent t	0.143
Pump capacity flow rate l/min	8 ... 27
Pump capacity flow pressure bar	0.1 ... 0.7

All Benefits

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



Solid.
Minimized energy loss through high-quality insulation.



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.

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

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.

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

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.

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.
Connection using the optional 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 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.