## **DYNEO DD Heating Immersion 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 or 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)

#### Product features

- 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
- USB connection
- RS232 interface or analog interfaces (optional)
- Flexible installation options

Dimensions cm ( $W \times L \times H$ )

For internal and external applications

#### **Technical data**

Available voltage versions		Cooling		
Order No.	9 021 000		Cooling coil	accessory
Available voltage versions:				
9 021 000.33	200-230V/50-60H: 7/4 Plug Type F)	z (Schuko Plug - CEE		
9 021 000.33.chn	200-230V/50-60H	z (CN Plug)		
9 021 000.04	200-230V/50-60H BS1363A)	z (UK Plug Type		
9 021 000.05	200-230V/50-60H 1011)	z (CH Plug Type SEV		
9 021 000.22	100-115V/50-60H	z (Nema N5-15 Plug)		
Other			Electronics	
Classification		Classification III (FL)	External pt100 sensor connection	integrated
IP Code		IP 21	Integrated programmer	8x60 steps
Pump function		Pressure Pump	Temperature control	PID2
Pump type		Immersion Pump	Absolute temperature calibration	3 Point Calibration
			Temperature display	3.5" TFT Display
			Temperature setting	Shaft Encoder
			Electronic Timer hr:min	00:00 99:59
Dimensions and	volumes		Temperature values	
Usable immersion de	pth cm	16	Setting the resolution of the temperature	0.01
Weight kg		2.5	display °C	

13.2 x 16 x 35.5

Working temperature range °C



+20 ... +200



Temperature stability °C	±0.01
Ambient temperature °C	+5 +40

## Performance values

## 200-230V/50-60Hz (Schuko Plug - CEE 7/4 Plug Type F)

200V/50Hz		200V/60Hz	
Heating capacity kW	1.5	Heating capacity kW	1.5
Viscosity max. cST	50	Viscosity max. cST	50
Pump capacity flow rate l/min	8 27	Pump capacity flow rate l/min	8 27
Pump capacity flow pressure bar	0.1 0.7	Pump capacity flow pressure bar	0.1 0.7
Power	9 A	Power	9 A
230V/50Hz		230V/60Hz	
230V/50Hz Heating capacity kW	2	230V/60Hz Heating capacity kW	2
	2 50		2 50
Heating capacity kW	_	Heating capacity kW	_
Heating capacity kW Viscosity max. cST	50	Heating capacity kW Viscosity max. cST	50

#### 200-230V/50-60Hz (CN Plug)

200V/50Hz	
Heating capacity kW	1.5
Viscosity max. cST	50
Pump capacity flow rate l/min	8 27
Pump capacity flow pressure bar	0.1 0.7
Power	9 A
230V/50Hz	
230V/50Hz Heating capacity kW	2
· ·	2 50
Heating capacity kW	-
Heating capacity kW Viscosity max. cST	50

200V/60Hz	
Heating capacity kW	2
Viscosity max. cST	50
Pump capacity flow rate l/min	8 27
Pump capacity flow pressure bar	0.1 0.7
Power	9 A
230V/60Hz	
230V/60Hz Heating capacity kW	2
	2 50
Heating capacity kW	-
Heating capacity kW Viscosity max. cST	50

## 200-230V/50-60Hz (UK Plug Type BS1363A)

200V/50Hz		200V/60Hz	
Heating capacity kW	1.5	Heating capacity kW	1.5
Viscosity max. cST	50	Viscosity max. cST	50
Pump capacity flow rate I/min	8 27	Pump capacity flow rate I/min	8 27
Pump capacity flow pressure bar	0.1 0.7	Pump capacity flow pressure bar	0.1 0.7
Power	9 A	Power	9 A
230V/50Hz		230V/60Hz	
Heating capacity kW	2	Heating capacity kW	2
Viscosity max. cST	50	Viscosity max. cST	50

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Pump capacity flow rate I/min	8 27	Pump capacity flow rate l/min	8 27
Pump capacity flow pressure bar	0.1 0.7	Pump capacity flow pressure bar	0.1 0.7
Power	10 A	Power	10 A

## 200-230V/50-60Hz (CH Plug Type SEV 1011)

200V/50Hz		200V/60Hz	
Heating capacity kW	1.5	Heating capacity kW	1.5
Viscosity max. cST	50	Viscosity max. cST	50
Pump capacity flow rate I/min	8 27	Pump capacity flow rate l/min	8 27
Pump capacity flow pressure bar	0.1 0.7	Pump capacity flow pressure bar	0.1 0.7
Power	9 A	Power	9 A
230V/50Hz		230V/60Hz	
230V/50Hz Heating capacity kW	2	230V/60Hz Heating capacity kW	2
	2 50		2 50
Heating capacity kW	_	Heating capacity kW	_
Heating capacity kW Viscosity max. cST	50	Heating capacity kW Viscosity max. cST	50

### 100-115V/50-60Hz (Nema N5-15 Plug)

100V/50Hz		100V/60Hz	
Heating capacity kW	0.8	Heating capacity kW	0.8
Viscosity max. cST	50	Viscosity max. cST	50
Pump capacity flow rate I/min	8 27	Pump capacity flow rate l/min	8 27
Pump capacity flow pressure bar	0.1 0.7	Pump capacity flow pressure bar	0.1 0.7
Power	10 A	Power	10 A
115V/50Hz		115V/60Hz	
115V/50Hz Heating capacity kW	1	115V/60Hz Heating capacity kW	1
	1 50	· · ·	1 50
Heating capacity kW	•	Heating capacity kW	•
Heating capacity kW Viscosity max. cST	50	Heating capacity kW Viscosity max. cST	50

## All Benefits



## 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.

#### Satisfied customers.

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





Quick start.

Individual JULABO consultation and comprehensive manuals at your disposal.



#### Handle with ease. Makes day-to-day w

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.



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



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



## Connection. Easy.

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

easy to read, even from a large distance.



**Brilliance. In color.** Large color display with vivid luminance is



Multi-lingual. Operation in multiple languages.



**Powerful. Adjustable.** Strong pressure pump, continuously adjustable.



Fill level. Monitored. Fill level indicator on the display for heattransfer liquid.



#### 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



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



**RS232.** Connection using the optional RS232 interface.



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



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



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



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



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



**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.



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