

DYNEO DD-900F 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)



Adetro

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 I/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

Cooling

Available voltage	versions	Bath						
Order No.	9 021 706	Bath tank	Stainless steel					
Available voltage vers	ions:	Bath cover	integrated					
9 021 706.02	115V/60Hz ()	Usable bath opening in. (W x L / D)	10.2 x 13.8 / 7.9					
9 021 706.04	230V/50-60Hz (UK Plug Type BS1363A)							
9 021 706.05	230V/50-60Hz (CH Plug Type SEV 1011)							
9 021 706.33	230V/50-60Hz (Schuko Plug - CEE 7/4 Plug Type F)							
9 021 706.33.chn	230V/50-60Hz (CN Plug)							

Cooling		Other	
Cooling of compressor	1-stage Air	Classification III (FL)	
		Pump function	Pressure Pump
		Pump type	Immersion Pump
Electronics		Dimensions and volumes	
External pt100 sensor connection	integrated	Weight lbs	114
Integrated programmer	8x60 steps	Barbed fittings inner diameter	8/12 mm
Temperature control	PID2	Dimensions in. $(W \times L \times H)$	15.4 x 24.4 x 29.5
Absolute temperature calibration	3 Point Calibration	Filling volume I	21 30
Temperature displayTemperature display	3.5" TFT Display	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	-38 +200
Temperature stability °C	±0.01
Ambient temperature °C	+5 +40

Performance values

115V/60Hz ()

115V	115V/60Hz												
Heating capacity kW 1													
Cooling capacity (Ethanol)													
°C	°C 20 10 0 -10 -20 -30												
kW	kW 0.9 0.85 0.8 0.52 0.31 0.11												
Viscos	sity ma	x. cST					50						
Refrig	erant						R449A						
Filling	volum	e g					220						
Globa	l Warm	ning Po	tentia	l for R4	149A		1397						
Carbo	n dioxi	de equ	ivalen	t t			0.307						
Pump	Pump capacity flow rate I/min 8 27												
Pump	capac	ity flow	v pres	sure ps	si		1.5 10.2						

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

200V/50Hz									200V/60Hz							
Heatir	ng cap	acity k\	Ν				1.5	Heating capacity kW 1.5						1.5		
Coolir	ig capa	acity (E	thano	l)				Cooling capacity (Ethanol)								
°C	20	10	0	-10	-20	-30		°C 20 10 0 -10 -20 -30								
kW	0.9	0.85	0.8	0.52	0.31	0.11		kW	0.9	0.85	0.8	0.52	0.31	0.11		
Viscos	sity ma	ax. cST					50	Viscos	ity ma	x. cST					50	
Refrig	erant						R449A	Refrig	erant						R449A	
Filling	volum	ie g					220	Filling	volum	e g					220	
Globa	l Warm	ning Po	tentia	l for R4	149A		1397	Global Warming Potential for R449A 1397							1397	
Carbo	n diox	ide equ	ivalen	t t			0.307	Carbon dioxide equivalent t 0.307							0.307	
Pump	capac	ity flov	v rate	/min			8 27	Pump	capac	ity flov	rate	l/min			8 27	
Pump	capac	ity flov	v pres	sure ps	si		1.5 10.2	Pump capacity flow pressure psi 1.5 10.2							1.5 10.2	
230V	//50H	lz						230V/60Hz								
Heatir	ng cap	acity k\	Ν				2	Heating capacity kW 2							2	
Coolir	ıg capa	acity (E	thano	l)				Cooling capacity (Ethanol)								
°C	20	10	0	-10	-20	-30		°C 20 10 0 -10 -20 -30								
kW	0.9	0.85	0.8	0.52	0.31	0.11		kW 0.9 0.85 0.8 0.52 0.31 0.11								
Viscosity max. cST 50									Viscosity max. cST 50							



Refrigerant	R449A	Refrigerant	R449A
Filling volume g	220	Filling volume g	220
Global Warming Potential for R449A	1397	Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.307	Carbon dioxide equivalent t	0.307
Pump capacity flow rate I/min	8 27	Pump capacity flow rate I/min	8 27
Pump capacity flow pressure psi	1.5 10.2	Pump capacity flow pressure psi	1.5 10.2

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

200\	200V/50Hz									200V/60Hz						
Heatir	ng capa	acity kV	٧				1.5	Heatin	g cap	acity k\	N				1.5	
Coolir	ng capa	acity (E	thano	I)				Cooling capacity (Ethanol)								
°C	20	10	0	-10	-20	-30		°C	20	10	0	-20	-30			
kW	0.9	0.85	0.8	0.52	0.31	0.11		kW	0.9	0.85	0.8	0.52	0.31	0.11		
Viscosity max. cST 50								Viscos	sity ma	ax. cST					50	
Refrigerant R449A								Refrige	erant						R449A	
Filling volume g 220								Filling	volum	ie g					220	
Globa	l Warm	ning Po	tentia	l for R4	149A		1397	Global	Warm	ning Po	tentia	I for R4	149A		1397	
Carbo	n dioxi	de equ	ivalen	t t			0.307	Carbo	n dioxi	ide equ	ivalen	t t			0.307	
Pump	capac	ity flow	rate l	l/min			8 27	Pump	capac	ity flov	rate	l/min			8 27	
Pump	capac	ity flow	pres	sure ps	si		1.5 10.2	Pump capacity flow pressure psi 1.5 10.2								
230V/50Hz																
								230V	/60F	IZ						
			٧				2		-	IZ acity k\	N				2	
Heatir	ng capa			l)			2	Heatin	g cap			l)			2	
Heatir	ng capa	acity k\		l) -10	-20	-30	2	Heatin	g cap	acity k\		l) -10	-20	-30	2	
Heatir Coolir	ng capa	acity kV acity (E	thano			-30	2	Heatin	g capa g capa	acity k\	thano		-	-30		
Heatin Coolin °C kW	ng capa ng capa 20 0.9	acity kV acity (E 10	thano 0 0.8	-10		-30 0.11	2 50	Heatin Coolin °C kW	g capa g capa 20 0.9	acity k\ acity (E 10	thano 0 0.8	-10	-	-30 0.11		
Heatin Coolin °C kW	ng capa ng capa 20 0.9 sity ma	acity kV acity (E 10 0.85	thano 0 0.8	-10		-30 0.11		Heatin Coolin °C kW	g capa g capa 20 0.9	acity k\ acity (E 10 0.85	thano 0 0.8	-10	-	-30 0.11		
Heatin Coolin °C kW Viscos Refrig	ng capa ng capa 20 0.9 sity ma	acity kV acity (E 10 0.85 ax. cST	thano 0 0.8	-10		-30 0.11	50	Heatin Coolin °C kW	g capa g capa 20 0.9 sity ma	acity k\ acity (E 10 0.85 ax. cST	thano 0 0.8	-10	-	-30 0.11	50	
Heatin Coolin °C kW Viscool Refrig	ng capa 20 0.9 sity ma erant	acity kV acity (E 10 0.85 ax. cST	thano 0 0.8	-10 0.52	0.31	-30 0.11	50 R449A	Heatin Coolin °C kW Viscos Refrigo	g capa g capa 20 0.9 sity ma erant	acity k\ acity (E 10 0.85 ax. cST	thano 0 0.8	-10 0.52	0.31	-30 0.11	50 R449A	
Heatin Coolin °C kW Viscoo Refrig Filling Globa	ng capa ng capa 20 0.9 sity ma erant volum	acity kV acity (E 10 0.85 ax. cST	thano 0 0.8	-10 0.52	0.31	-30 0.11	50 R449A 220	Heatin Coolin °C kW Viscos Refrigo Filling	g capa g capa 20 0.9 sity ma erant volum	acity kl acity (E 10 0.85 ax. cST	thano 0 0.8	-10 0.52	0.31	-30 0.11	50 R449A 220	
Heatin Coolin °C kW Viscos Refrig Filling Globa Carbo	ng capa 20 0.9 sity ma erant volum I Warm	acity kV acity (E 10 0.85 ax. cST ae g	thano 0 0.8 tentia	-10 0.52	0.31	-30 0.11	50 R449A 220 1397	Heatin Coolin °C kW Viscos Refrigo Filling Global Carbon	g capa g capa 20 0.9 sity ma erant volum Warm	acity k\ acity (E 10 0.85 ax. cST ax cST	thano 0 0.8 tentia	-10 0.52 I for R4	0.31	-30 0.11	50 R449A 220 1397	

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

200V	/50H	lz						200V/60Hz								
Heatir	ıg capa	acity k\	W				1.5	Heating capacity kW 1.5							1.5	
Cooling capacity (Ethanol)									Cooling capacity (Ethanol)							
°C	°C 20 10 0 -10 -20 -30							°C	20	10	0	-10	-20	-30		
kW	kW 0.9 0.85 0.8 0.52 0.31 0.1							kW	0.9	0.85	8.0	0.52	0.31	0.11		
Viscos	sity ma	x. cST					50	Refrigerant						R449A		
Refrig	erant						R449A	Filling volume g 220						220		
Filling	volum	e g					220	Global Warming Potential for R449A 1397						1397		
Globa	Warm	ning Po	tentia	l for R4	149A		1397	Carbon dioxide equivalent t 0.307						0.307		
Carbon dioxide equivalent t 0.307								Pump capacity flow rate I/min 8 27						8 27		
Pump	capac	ity flov	v rate l	/min			8 27	Pump capacity flow pressure psi 1.5 10.2						1.5 10.2		



Pump	сарас	city flov	v pres	sure ps	si		1.5 10.2								
230\	//50H	Ηz						230V/60Hz							
Heati	ng cap	acity k	W				2	Heating capacity kW 2						2	
Cooling capacity (Ethanol)								Coolin	ng capa	acity (E	thano	I)			
°C	20	10	0	-10	-20	-30		°C	20	10	0	-10	-20	-30	
kW	W 0.9 0.85 0.8 0.52 0.31 0.1							kW	0.9	0.85	0.8	0.52	0.31	0.11	
Visco	sity ma	ax. cST					50	Viscos	sity ma	ax. cST					50
Refrig	jerant						R449A	Refrigerant							R449A
Filling	yolum	ne g					220	Filling	volum	ne g					220
Globa	ıl Warn	ning Po	tentia	I for R4	149A		1397	Globa	l Warm	ning Po	tentia	l for R4	149A		1397
Carbo	n diox	ide equ	ıivalen	nt t			0.307	Carbo	n dioxi	ide equ	uivaler	t t			0.307
Pump	сарас	city flov	v rate	l/min			8 27	Pump capacity flow rate l/min 8 27					8 27		
Pump	сарас	city flov	v pres	sure ps	si		1.5 10.2	Pump capacity flow pressure psi 1.5 10.2					1.5 10.2		
230V/50-60Hz (CN Plug)															

200V	200V/50Hz								200V/60Hz						
Heatir	ıg cap	acity k\	N				1.5	Heatin	g cap	acity k\	N				1.5
Coolin	g cap	acity (E	thano	l)				Coolin	g capa	acity (E	thano	l)			
°C	20	10	0	-10	-20	-30		°C	20	10	0	-10	-20	-30	
kW	0.9	0.85	0.8	0.52	0.31	0.11		kW	0.9	0.85	0.8	0.52	0.31	0.11	
Viscosity max. cST 50								Viscos	ity ma	ax. cST					50
Refrig	erant						R449A	Refrige	erant						R449A
Filling	volum	ne g					220	Filling	volum	ie g					220
Global	Warn	ning Po	tentia	I for R4	149A		1397	Global	Warm	ning Po	tentia	l for R4	149A		1397
Carbo	n diox	ide equ	ivalen	ıt t			0.307	Carbo	n dioxi	ide equ	ivalen	t t			0.307
Pump	capac	ity flov	v rate	l/min			8 27	Pump	capac	ity flov	rate	l/min			8 27
Pump	capac	ity flov	v pres	sure ps	si		1.5 10.2	Pump capacity flow pressure psi 1.5 10.2							1.5 10.2
230V	//50H	łz						230V/60Hz							
Heatir	ıg cap	acity k\	N				2	Heating capacity kW 2							
Coolin	g cap	acity (E	thano	l)				Cooling capacity (Ethanol)							
°C	20	10	0	-10	-20	-30		°C 20 10 0 -10 -20 -30							
kW	0.9	0.85	8.0	0.52	0.31	0.11		kW	0.9	0.85	8.0	0.52	0.31	0.11	
Viscos	sity ma	ax. cST					50	Viscos	ity ma	ax. cST					50
Refrig	erant						R449A	Refrige	erant						R449A
Filling	volum	ne g					220	Filling volume g 220						220	
Global Warming Potential for R449A 1397								Global Warming Potential for R449A 1397						1397	
Carbon dioxide equivalent t 0.307								Carbon dioxide equivalent t							0.307
Pump	capac	ity flov	v rate	l/min			8 27	Pump capacity flow rate I/min							8 27
Pump capacity flow pressure psi 1.5 10.2									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.



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.



B6333

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 heattransfer liquid.



Process. Under control.

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



Stable. Mobile.