

DYNEO DD-1000F Refrigerated/Heating Circulator

New temperature control technology for demanding applications

DYNEO DD refrigerated circulators have a wide working temperature range. Refrigerated circulators are suitable for both internal and external applications. The multilingual 3.5-inch color display and unique rotary knob provide for straightforward and intuitive operation. Pump capacity is 22 l/min with pressure of 0.6 bar. The cooling machines operate precisely and reliably even at elevated ambient temperatures up to +40 °C.



Your advantages

- Powerful cooling machines
- Suitable for internal and external applications
- Optimized cooling coil design saves space in the bath tank
- Powerful and infinitely adjustable pressure pump
- Flow rate 22 l/min, pressure 0.6 bar
- Easy switching between internal and external circulation
- Large color TFT display, multilingual interface
- Central rotary knob (controller) simplifies operation
- Integrated programmer for 8 x 60 program steps
- Integrated external Pt100 connection
- USB port
- RS232 interface or analog interfaces (optional)
- Bath cover included with delivery
- Integrated drain makes emptying liquid easy and safe.

Technical Data

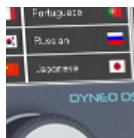
Order No.	9021707							
Order No. with RS232 Option	9021707.D							
Order No. with analog Option	9021707.A							
Model series	DYNEO							
Category	Refrigerated - Heating Circulators							
Working temperature range (°C)	-50 ... +200							
Temperature control	PID							
Temperature stability (°C)	±0.01							
Setting / display resolution	0.01 °C							
Temperature Display	3.5" TFT Display							
Heating capacity (kW)	2							
Cooling capacity (Medium Ethanol)	°C	20	10	0	-10	-20	-30	-40
	kW	1	1	0.9	0.73	0.5	0.3	0.13
Pump capacity flow rate (l/min)	8 ... 23							
Pump capacity flow pressure (bar)	0.1 ... 0.6							
Viscosity max. (cSt)	50							

Bath opening / bath depth (W x L / D cm)	22 x 15 / 15
Pump connections	M16x1
Barbed fittings diameter (inner dia. / mm)	8 / 12
Filling volume liters	5 ... 7.5
Refrigerant stage 1	R452A
Filling volume refrigerant stage 1 (g)	175
Global Warming Potential for R452A	2140
Carbon dioxide equivalent stage 1 (t)	0.375
Digital interface	USB
Analog connection input / output	Optional
Ambient temperature	5...40 °C
Dimensions W x L x H (cm)	42 x 49 x 70
Weight (kg)	51.2
Included with each unit	2 each barbed fitting for tubing 8 and 12 mm inner dia. (pump connections M16x1 male)
Bath tank	Stainless steel
Bath cover	integrated
Cooling of compressor	Air
Available voltage versions	115V/60Hz 200-230V/50-60Hz

Characteristics



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



Multi-lingual.
 Operation in multiple languages.



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



Powerful. Adjustable.
 Strong pressure pump, continuously adjustable.



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



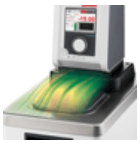
Process stability.
 Early warning - visual and acoustic - of critical states increases process stability.



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



Process. Under control.
 Full control of the dynamic, access to all important control parameters for individual process optimisation.



Condensation protection.

Superb design solution. Integrated ventilation directs air over the bath lid and minimizes condensation.



Programmer. Integrated.

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



Connection. Easy.

Inclined pump connections (M16x1) facilitate the connection of applications. Each unit includes 2 barbed fittings of 8/12 mm diameter each.



RS232.

Standard connection using the serial RS232 interface.



Everything at the front.

All operating controls and safety functions are accessed easily and comfortably from the front.



Stable. Mobile.

Rubber feet keep JULABO Circulators standing firm. Larger and more powerful units also have integrated rollers for easy handling.



Fill level. Monitored.

Fill level indicator on the display for heat-transfer liquid.



Temperature. Under control.

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



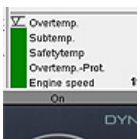
Highly precise.

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



Turn. Push. Go.

Easy operation of all parameters using the central controller.



Information. Everything clear.

Information in plain text on a large color screen.



USB.

Remote control made easy using the integrated USB interface.