MAGIO MS-1000F Refrigerated / heating circulator



As with all circulators from the MAGIO range, the refrigerated circulators stand out thanks to their premium quality, high performance and intuitive operation. The devices offer extra strong pressure and suction pumps, thus fulfilling the highest demands for temperature control of external applications. Whether in basic research, material testing or technical systems – the MAGIO refrigerated circulators offer high-tech solutions for high customer requirements.

High resolution TFT touch display

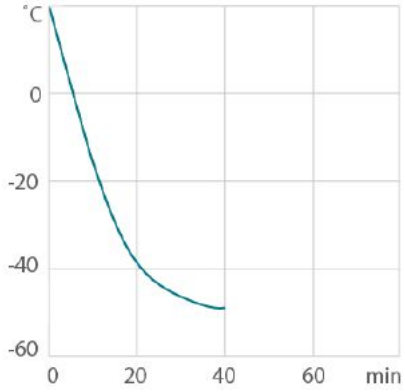


The modern TFT touch display gives you all the important information at a glance. Three large, predefined main screens clearly display data and graphics with various application priorities. Menu navigation is self-explanatory, arranged by relevance to daily operations and easy to operate with the touch of a finger. The in-built help function provides detailed support in case of additional questions.

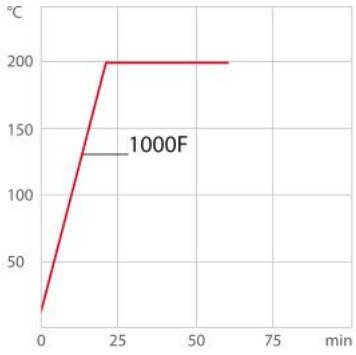
Product features

- Ideal for demanding external applications
- Simple control of complex applications
- Continuously adjustable, extremely powerful pressure / suction pump
- Flow rate 16 ... 31 l / min, pressure 0.24 ... 0.92 bar, suction 0.03 ... 0.4 bar
- Large, high-resolution TFT touch display with multilingual user interface
- Parts being in contact with the medium made of stainless steel
- Integrated programmer
- Integrated external Pt100 connection
- USB connection
- RS232 interface for online communication
- Ethernet
- analog interfaces (accessory)
- Class III (FL) according to DIN 12876-1
- Modbus
- Profibus DP (Accessory)
- RS232/RS485 interface for online communication
- Connections for solenoid valve

Cool-down time



Heat-up time



Medium: Ethanol

Performance values

230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F)	
Heating capacity kW	2
Viscosity max. cST	70
Pump capacity flow rate l/min	16 ... 31
Pump capacity flow pressure bar	0.24 ... 0.92
Maximum suction bar	-0.03 ... -0.4
Power A	16

Order No.	9032707.33

Cooling capacity (Ethanol)

°C	20	10	0	-10	-20	-30	-40
kW	1	0.96	0.96	0.7	0.51	0.25	0.11

Refrigerant stage 1	
Refrigerant	R449A
Filling volume g	190
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	0.265

Technical data

Available voltage versions	
Order No.	9 032 707
Available voltage versions:	
9032707.02	115V/60Hz (Nema N5-20 Plug) (R449A)
9032707.05	200-230V/50-60Hz (CH Plug Type SEV 1011) (R449A)
9032707.04	200-230V/50-60Hz (UK Plug Type BS1363A) (R449A)

Bath	
Bath tank	Stainless steel
Bath cover	integrated
Usable bath opening cm (W x L / D)	18 x 13 / 15

9032707.33	200-230V/50-60Hz (Schuko Plug - CEE 7/4 Plug Type F) (R449A)
9032707.33.chn	200-230V/50-60Hz (CN Plug) (R449A)

Cooling

Cooling of compressor	1-stage Air

Other

Classification	Classification III (FL)
IP Code	IP 21
Pump function	Pressure Suction Pump
Pump type	Immersion Pump

Electronics

Digital interface	RS232, RS485, USB, Ethernet, Modbus
External pt100 sensor connection	integrated
Integrated programmer	8x60 steps
Temperature control	ICC
Absolute temperature calibration	10 Point Calibration
Temperature display	7" TFT Touchscreen
Temperature setting	Touchscreen
Electronic Timer hr:min	00:00 ... 99:59

Dimensions and volumes

Weight kg	54.1
Dimensions cm (W × L × H)	42 x 49 x 74
Filling volume l	5 ... 7.5
Pump connections	M16x1 male

Temperature values

Setting the resolution of the temperature display °C	0.01
Working temperature range °C	-50 ... +200
Temperature stability °C	±0.01
Ambient temperature °C	+10 ... +40
Temperature display resolution °C	0.01

Included in delivery

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.



Intelligent temperature control.
Intelligent cascade control - automatic and self-optimizing adaptation of the PID control parameters with external stability of +/- 0.05 °C.



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.

Touch display. Perfect operation.
With the touch display, the user always has an overview of all values and functions. The intuitive and multilingual menu structure enables perfect control.

Maximum safety.
Classification III according to DIN12876-1 enables safe operation, even with flammable fluids. Automatic switch-off in the event of high temperature or low liquid level.

Multi-lingual.
Operation in multiple languages.



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

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



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



Everything made of stainless steel.
Quality and material compatibility at the highest level. All parts in contact with the medium are entirely made of stainless steel.



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

Most powerful pump.
The integrated pressure/suction pump with performance values of 0.9 bar and -0.4 bar is the most powerful in its class and continuously adjustable.

Highest measuring accuracy
'Absolute Temperature Calibration' for manual compensation of a temperature difference, 10-point calibration

Many interfaces.
Straight-forward remote control, data management, and integration into process structures. USB, Ethernet, RS232, SD card, and alarm off are permanently integrated. Further interfaces available as accessories.



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.

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

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.

Energy-saving.
The high-quality insulation of all relevant components saves energy.



Wide range.
Refrigerated and heating circulator in various combinations, circulator in various sizes. Maximum flexibility through a large selection of accessories.



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



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