

MAGIO MS-BC4 Heating Circulator

Like all circulators in the MAGIO range, the heating circulators are characterised by premium quality and high performance combined with intuitive usability. The devices offer extra powerful pressure and suction pumps to meet the most challenging demands for temperature control of external applications. Samples can also be temperature controlled in the internal bath of the high-quality, insulated and closed bath tank.

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.



Your advantages

- USB connection
- RS232 interface for online communication
- Integrated programmer
- Integrated external Pt100 connection
- analog interfaces (accessory)
- Ideal for demanding external applications
- Simple control of complex applications
- Flow rate 16 ... 31 l / min, pressure 0.24 ... 0.92 bar, suction 0.03 ... 0.4 bar
- Continuously adjustable, extremely powerful pressure / suction pump
- Strong heating capacity of 3 kW (MX-Z) and 2 kW (MS-Z)
- High-quality thermal insulation of the bath tanks
- Models for internal and external applications from 3 to 26 liters
- Large, high-resolution TFT touch display with multilingual user interface
- Parts being in contact with the medium made of stainless steel
- Ethernet
- Profibus DP (Accessory)
- Modbus

Technical data

Available voltage versions		Bath	
Order No.	9 032 504	Bath tank	Stainless steel
Available voltage versions:		Bath cover	integrated
9 032 504.22		Usable bath opening in. (W x L / D)	5.1 x 5.9 / 5.9
9 032 504.33			
9 032 504.04			
9 032 504.05			
9 032 504.33.chn			
Cooling		Other	
Cooling coil	integrated	Classification	Classification III (FL)
		IP Code	IP 21
		Pump function	Pressure Suction Pump
		Pump type	Immersion Pump
Electronics		Dimensions and volumes	
External pt100 sensor connection	integrated	Weight lbs	24.5

Integrated programmer	8x60 steps	Dimensions in. (W x L x H)	9.1 x 16.1 x 16.5
Temperature control	ICC	Filling volume l	3 ... 4.5
Absolute temperature calibration	3 Point Calibration	Pump connections	M16x1 male
Temperature display	Temperature display		
	7" TFT Touchscreen		
Temperature setting	Temperature setting		
	Touchscreen		
Electronic Timer hr:min	00:00 ... 00:00		

Temperature values

Setting the resolution of the temperature display °C	0.01
Working temperature range °C	+20.0 ... +300.0
Temperature stability °C	+/-0.01
Ambient temperature °C	+10.0 ... +40.0
Temperature display resolution °C	0.01

Performance values

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 l/min	16 ... 31	Pump capacity flow rate l/min	16 ... 31
Pump capacity flow pressure psi	3.5 ... 13.3	Pump capacity flow pressure psi	3.5 ... 13.3
Maximum suction psi	-0.4 ... -5.8	Maximum suction psi	-0.4 ... -5.8
115V/60Hz			
Heating capacity kW	1		
Viscosity max. cST	50		
Pump capacity flow rate l/min	16 ... 31		
Pump capacity flow pressure psi	3.5 ... 13.3		
Maximum suction psi	-0.4 ... -5.8		

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

200V/50Hz		200V/60Hz	
Heating capacity kW	1.6	Heating capacity kW	1.6
Viscosity max. cST	50	Viscosity max. cST	50
Pump capacity flow rate l/min	16 ... 31	Pump capacity flow rate l/min	16 ... 31
Pump capacity flow pressure psi	3.5 ... 13.3	Pump capacity flow pressure psi	3.5 ... 13.3
Maximum suction psi	-0.4 ... -5.8	Maximum suction psi	-0.4 ... -5.8
230V/50Hz		230V/60Hz	
Heating capacity kW	2	Heating capacity kW	2
Viscosity max. cST	50	Viscosity max. cST	50
Pump capacity flow rate l/min	16 ... 31	Pump capacity flow rate l/min	16 ... 31
Pump capacity flow pressure psi	3.5 ... 13.3	Pump capacity flow pressure psi	3.5 ... 13.3
Maximum suction psi	-0.4 ... -5.8	Maximum suction psi	-0.4 ... -5.8

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

200V/50Hz		200V/60Hz	
Heating capacity kW	1.6	Heating capacity kW	1.6
Viscosity max. cST	50	Viscosity max. cST	50
Pump capacity flow rate l/min	16 ... 31	Pump capacity flow rate l/min	16 ... 31
Pump capacity flow pressure psi	3.5 ... 13.3	Pump capacity flow pressure psi	3.5 ... 13.3
Maximum suction psi	-0.4 ... -5.8	Maximum suction psi	-0.4 ... -5.8
230V/50Hz		230V/60Hz	
Heating capacity kW	2	Heating capacity kW	2
Viscosity max. cST	50	Viscosity max. cST	50
Pump capacity flow rate l/min	16 ... 31	Pump capacity flow rate l/min	16 ... 31
Pump capacity flow pressure psi	3.5 ... 13.3	Pump capacity flow pressure psi	3.5 ... 13.3
Maximum suction psi	-0.4 ... -5.8	Maximum suction psi	-0.4 ... -5.8

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

200V/50Hz		200V/60Hz	
Heating capacity kW	1.6	Heating capacity kW	1.6
Viscosity max. cST	50	Viscosity max. cST	50
Pump capacity flow rate l/min	16 ... 31	Pump capacity flow rate l/min	16 ... 31
Pump capacity flow pressure psi	3.5 ... 13.3	Pump capacity flow pressure psi	3.5 ... 13.3
Maximum suction psi	-0.4 ... -5.8	Maximum suction psi	-0.4 ... -5.8
230V/50Hz		230V/60Hz	
Heating capacity kW	2	Heating capacity kW	2
Viscosity max. cST	50	Viscosity max. cST	50
Pump capacity flow rate l/min	16 ... 31	Pump capacity flow rate l/min	16 ... 31
Pump capacity flow pressure psi	3.5 ... 13.3	Pump capacity flow pressure psi	3.5 ... 13.3
Maximum suction psi	-0.4 ... -5.8	Maximum suction psi	-0.4 ... -5.8

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

200V/50Hz		200V/60Hz	
Heating capacity kW	1.6	Heating capacity kW	1.6
Viscosity max. cST	50	Viscosity max. cST	50
Pump capacity flow rate l/min	16 ... 31	Pump capacity flow rate l/min	16 ... 31
Pump capacity flow pressure psi	3.5 ... 13.3	Pump capacity flow pressure psi	3.5 ... 13.3
Maximum suction psi	-0.4 ... -5.8	Maximum suction psi	-0.4 ... -5.8
230V/50Hz		230V/60Hz	
Heating capacity kW	1.8	Heating capacity kW	1.8
Viscosity max. cST	50	Viscosity max. cST	50
Pump capacity flow rate l/min	16 ... 31	Pump capacity flow rate l/min	16 ... 31
Pump capacity flow pressure psi	3.5 ... 13.3	Pump capacity flow pressure psi	3.5 ... 13.3
Maximum suction psi	-0.4 ... -5.8	Maximum suction psi	-0.4 ... -5.8

All Benefits



JULABO. Quality.
Highest standards of quality for a long product life.



Green technology.
Development consistently applied environmentally friendly materials and technologies.



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



100% Checked.
100% testing. 100% quality. Each JULABO Circulator undergoes thorough quality testing before leaving the factory.



Quick start.
Individual JULABO consultation and comprehensive manuals at your disposal.



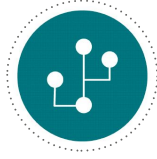
Services 24/7.
Around the clock availability. You can find suitable accessories, data sheets, manuals, case studies, and more at www.julabo.com.



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.



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



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.



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.



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.



Multi-lingual.
Operation in multiple languages.



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.



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



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



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



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



Stable. Mobile.



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.



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).



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



Most powerful pump.
The integrated pressure/suction pump with performance values of 0.9 bar and -0.5 bar is the most powerful in its class and continuously adjustable.



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



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