

F12-EH Refrigerated/Heating Circulator

The first choice for routine and straightforward laboratory applications.

JULABO Refrigerated & Heating Circulators for heating and cooling are suitable for external temperature tasks and for temperature applications directly in the bath. A model from three different series' with different capacities can be selected. Powerful circulating pump systems and high heating and cooling capacities guarantee short heat-up and cool-down times. The inevitable dust accumulation that occurs in refrigeration systems is solved by means of an easily removed venting grill, which allows for easy cleaning. Depending on the model, the units are equipped with handles or castors for an easy transportation. All models have a drain screw on the front allowing the fluid to be drained easily. The compact assembly of each unit enables a space to be saved in the laboratory.



Made
in Germany

Your advantages

- Bright LED temperature display, resolution 0.1 °C
- Keypad for setpoint, switches automatically to the actual value
- PID1 temperature control
- Adjustable high temperature cut-out
- Low liquid level protection
- ATC 1-point calibration
- Timer function

Technical Data

Order No.	9118612								
Model series	Economy								
Category	Refrigerated - Heating Circulators								
Working temperature range (°C)	-20 ... +150								
Temperature stability (°C)	±0.03								
Setting / display resolution	0.1 °C								
Temperature Display	LED								
Heating capacity (kW)	1								
Cooling capacity (Medium Ethanol)	<table border="1"> <tbody> <tr> <td>°C</td> <td>20</td> <td>0</td> <td>-20</td> </tr> <tr> <td>kW</td> <td>0.2</td> <td>0.12</td> <td>0.02</td> </tr> </tbody> </table>	°C	20	0	-20	kW	0.2	0.12	0.02
°C	20	0	-20						
kW	0.2	0.12	0.02						
Pump capacity flow rate (l/min)	15								
Pump capacity flow pressure (psi)	5.1								
Bath opening / bath depth (W x L / D inch)	5.1 x 5.9 / 5.1								
Pump connections	M10x1								
Barbed fittings diameter (inner dia. / mm)	8 / 10								
Filling volume liters	4.5								
Refrigerant	R134a								
Ambient temperature	5...40 °C								
Dimensions W x L x H (inch)	7.9 x 14.2 x 22								
Weight (LBS)	48								

Classification according to DIN12876-1	Classification III (FL) according to DIN 12876-1
Included with each unit	2 barbed fittings suitable for tubing 8 and 10 mm inner dia. (pump connections M10x1 female)
Cooling of compressor	Air
Power requirement V / Hz / A	115/60/13
Available voltage versions	230 V / 50 Hz 115 V / 60 Hz 230 V / 60 Hz 100 V / 50-60 Hz

Characteristics

Display



Easy to read

Large LED temperature display for actual value and setpoint (resolution 0.1 °C)

Operation



Clear and simple

3-key operation for easy setpoint adjustment

Temperature Control



Precise

PID Temperature control with set control parameters, temperature stability $\pm 0.02 \dots \pm 0.2$ °C



High measuring accuracy

'Absolute Temperature C alibration' for manual compensation of a temperature difference, 1-point calibration

Technical Features



Automatic control of operating time

Electronic countdown-timer function for timer-programmed unit shut-down, standby mode after programmed time expires

Warning & Safety Functions



Protective functions

Adjustable high temperature cut-off or dry-running protection



For flammable bath fluids

Classification III (FL) according to DIN 12876-1

Refrigeration Technology



Consistent cooling capacity

Easily removable venting grid for quick and easy cleaning



100 % Cooling capacity

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

JULABO Contact

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