

FP55-SL Ultra-Low Refrigerated / Heating Circulator

Ultra-Low Refrigerated Circulators with SL circulator impress with their high heating, cooling and pump capacities for external temperature control applications.

Product features

- VFD COMFORT DISPLAY
- LCD DIALOG DISPLAY backlit for convenient interactive operation
- Keypad for setpoints, warning/safety values and menu functions
- ICC (Intelligent Cascade Control), self-optimizing temperature control
- TCF Temperature Control Features to optimize the control behavior
- ATC3 3-Point-Calibration
- Pt100 External sensor connection for measurement and control
- SMART PUMP, electronically adjustable pump stages
- Unique early warning system for low liquid level
- Adjustable high temperature cut-out, visible via display
- RS232/RS485 interface for online communication
- Integrated programmer for 6 x 60 program steps
- Connections for solenoid valve and HSP booster pump
- Proportional cooling control
- Active Cooling Control



Performance values

400V/3PNPE/50Hz (Plug 32A CEE)	
Heating capacity kW	3
Viscosity max. cSt	70
Pump capacity flow rate l/min	22 ... 26
Pump capacity flow pressure bar	0.4 ... 0.7
Maximum suction bar	0.2 ... 0.4
Power consumption A	20

Refrigerant variants

Order No.	9352755N150.07				
Cooling capacity (Ethanol)					
°C	20	0	-20	-40	-50
kW ¹	5.2	4.1	2.2	0.7	0.3

Refrigerant stage 1

Refrigerant	R452A
Filling weight g	2000
Global Warming Potential for R452A	2140
Carbon dioxide equivalent t	4.28

Order No.	9352755N150.S1.07
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Refrigerant stage 1

Refrigerant	R449A
Filling weight g	2000
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	2.794

¹ Performance specifications measured in accordance with DIN 12876. Cooling capacities up to 20 °C measured with ethanol; over 20 °C with thermal oil unless otherwise specified. Performance specifications apply at an ambient temperature of 20 °C. Performance values may differ with other bath fluids.

Technical data

Available voltage versions

Order No.	9 352 755N150
Available voltage versions:	
9352755N150.07	400V/3PNPE/50Hz (Plug 32A CEE) (R452A)
9352755N150.S1.07	400V/3PNPE/50Hz (Plug 32A CEE) (R449A)
9352755N150.16	208V/3PPE/60Hz (Without Plug) (R452A)

Cooling

Cooling of compressor	1-stage Air
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Bath

Bath cover	integrated
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Other

Classification	Classification III (FL)
IP Code	IP 21

Electronics

Interfaces	Profibus optional
External pt100 sensor connection	integrated
Integrated programmer	6x60 steps
Temperature control	ICC
Absolute temperature calibration	3 Point Calibration
Temperature display	VFD
Temperature setting	Keypad

Dimensions and volumes

Weight kg	180
Dimensions cm (W × L × H)	85 x 76 x 116
Filling volume l	27
Pump connections	M16x1 male

Temperature values		Included in delivery
Setting the resolution of the temperature display °C	0.01	2 Barbed fittings for tubing 8 and 12 mm ID. (Pump connections M16x1 male)
Working temperature range °C	-55 ... +150	2 each barbed fittings for tubing 8 and 12 mm inner dia. (pump connections M16x1 female).
Temperature stability °C	±0.05	
Ambient temperature °C	+5 ... +40	
Setting the resolution of the temperature display °C	0.01	

All Benefits

	<p>For flammable bath fluid Classification III (FL) according to DIN 12876-1</p>		<p>ATC3. Calibration. 'Absolute Temperature Calibration' for compensating a physically caused temperature difference, 3-point calibration.</p>
	<p>Process. Under control. Full regulation of the dynamics control, access to all important control parameters for individual process optimization.</p>		<p>100 % Cooling capacity 'Active Cooling Control' for cooling available throughout the entire working temperature range, fast cool-down even at higher temperatures</p>
	<p>Early warning system for high/low temperature limits Maximum safety for applications, optical and audible alarm, convertible to automated cut-off function</p>		<p>Energy saving cooling Proportional cooling control for automatic adjustment of cooling power or temporary switch-off of compressor as needed to save up to 90 % energy in comparison to unregulated cooling machines</p>
	<p>Connection of additional equipment Stakei connections for solenoid valve, HSP booster pump and HST booster heater</p>		<p>Clever pump system Reliable and consistent pump capacity, electronically adjustable pump stages</p>
	<p>Control of the external application External Pt100 sensor connection for precise measurement and control directly in the external application</p>		<p>Condensation and ice protection A heated cover plate prevents condensation or ice build-up in the bath</p>
	<p>100% Checked. 100% testing. 100% quality. Each JULABO Circulator undergoes thorough quality testing before leaving the factory.</p>		<p>Green technology. Development consistently applied environmentally friendly materials and technologies.</p>
	<p>JULABO. Quality. Highest standards of quality for a long product life.</p>		<p>Quick start. Individual JULABO consultation and comprehensive manuals at your disposal.</p>



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.



Intelligent temperature control.

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