# Julabo

# FC600 Chiller

The recirculating coolers of the FC series are characterized by an increased working temperature range thanks to their integrated heating. They operate very precisely with a temperature stability of  $\pm 0.2$  °C.

### **Product features**

- Adjustable ratio for feed/return temperatures
- Easy filling system located at the front
- Activation of pump for filling
- Bright MULTI-DISPLAY (LED)
- Upper and lower temperature warning functions with interval tone
- Integrated freezing protection and dry-running protection
- Rapid and easy operation via seamless, splash-proof keypad
- Liquid level indication on the front
- Self-test, reciprocal sensor monitoring, pump motor and compressor overload protection
- Complete shut-down with audible signal in case of an alarm
- removable venting grid for simplified removal of dust
- RS232 interface for PC connection
- High temperature stability
- Integrated heater with 1.2 kW capacity
- Pressure Indicator
- Pressure Indicator

#### Performance values

230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F)				
Heating capacity kW	1.2			
Pump capacity flow rate I/min	20			
Pump capacity flow pressure bar	0.5			
Power consumption A	7			

Order No.		9600060.03					
Cooling capacity (Ethanol)							
°C	20	10	5	0	-10		
kW <sup>1</sup>	0.6	0.47	0.4	0.34	0.21		
Refrigerant stage 1							
Refrigerant	R134a						
Filling weight g	290						
Global Warming Potent R134a	ial for 1430						
Carbon dioxide equival	ent t 0.4147						

<sup>1</sup> 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 v	versions		Cooling			
Available voltage versions Order No. 9 600 060		·				
Available voltage versi	9 600 060		cooling of compressor	1-stage Air		
9600060.13 230V/60Hz (Nema N6-20 Plug) (R134a)						
9600060.03	230V/50Hz (Schuk	to Plug - CEE 7/4 Plug				
9600060.04	Type F) (R134a) 230V/50Hz (UK Plug Type BS1363A) (R134a)					
9600060.05		ug Type SEV 1011)				
Bath			Other			
Bath tank		Stainless steel	Sound pressure level dbA	51		
			Classification	Classification III (FL)		
			IP Code	IP 21		
			Pump type	Immersion Pump		
Electronics			Dimensions and volumes			
Interfaces		Alarm output, Profibus optional, RS232, Stakei, Standby-Input	Weight kg	48		
			Barbed fittings inner diameter mm	8/12 mm		
External pt100 sensor	connection	not available	Dimensions cm (W $\times$ L $\times$ H)	36 x 54 x 49		
Temperature control		PID1	Filling volume l	6 8		
Temperature display		2x LED	Pump connections	M16x1 male		
Temperature setting		Keypad				
Temperature value	es		Included in delivery			
Working temperature r	ange °C	-20 +80	2 Barbed fittings for tubing 8 and 12 mm ID. (Pump connections			
Temperature stability	C	±0.2	M16x1 male)			
Ambient temperature	C	+5 +40				
Setting the resolution of display °C	of the temperature	0.1				

## All Benefits



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



#### 100 % Cooling capacity

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



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



For flammable bath fluid Classification III (FL) according to DIN 12876-1





JULABO. Quality.

Highest standards of quality for a long product life.



#### Satisfied customers. 11 subsidiaries and more

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



#### Precise

PID Temperature control with set control parameters, temperature stability ±0.02...±0.2 °C



Connection of additional equipment Stakei connections for solenoid valve



#### 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.



# Early warning system for high/low temperature limits

Maximum safety for applications, optical and audible alarm, convertible to automated cut-off function