

## FC1600 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.



### Your advantages

- 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

### Technical data

<b>Available voltage versions</b>		<b>Bath</b>	
Order No.	9 600 160	Bath tank	Stainless steel
Available voltage versions:			
9 600 160.13	230V/60Hz (Schuko Plug - CEE 7/4 Plug Type F)		
9 600 160.03	230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F)		
9 600 160.04	230V/50Hz (UK Plug Type BS1363A)		
9 600 160.05	230V/50Hz (CH Plug Type SEV 1011)		
<b>Cooling</b>		<b>Other</b>	
Cooling of compressor	1-stage Air	Sound pressure level dbA	53
		Classification	Classification III (FL)
		IP Code	IP 21
		Pump type	Immersion Pump
<b>Electronics</b>		<b>Dimensions and volumes</b>	
Digital interface	RS232	Weight kg	65
External pt100 sensor connection	not available	Barbed fittings inner diameter	8/12 mm
Temperature control	PID1	Dimensions cm (W x L x H)	46 x 61 x 49
Temperature display	2x LED	Filling volume l	8 ... 11
Temperature setting	Keypad	Pump connections	M16x1 male
<b>Temperature values</b>			
Working temperature range °C	-20 ... +80		
Temperature stability °C	$\pm 0.2$		
Ambient temperature °C	5 ... 40		
Temperature display resolution °C	0.1		

## Performance values

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

230V/60Hz					
Heating capacity kW	1.2				
Cooling capacity (Water)					
°C	20	10	5	0	-10
kW	1.65	1.25	1	0.86	0.47
Refrigerant	R134a				
Filling volume g	380				
Global Warming Potential for R134a	1430				
Carbon dioxide equivalent t	0.543				
Pump capacity flow rate l/min	20				
Pump capacity flow pressure bar	0.5				

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

230V/50Hz					
Heating capacity kW	1.2				
Cooling capacity (Water Glycol)					
°C	20	10	5	0	-10
kW	1.65	1.25	1	0.86	0.47
Refrigerant	R134a				
Filling volume g	380				
Global Warming Potential for R134a	1430				
Carbon dioxide equivalent t	0.543				
Pump capacity flow rate l/min	20				
Pump capacity flow pressure bar	0.5				

### 230V/50Hz (UK Plug Type BS1363A)

230V/50Hz					
Heating capacity kW	1.2				
Cooling capacity (Water Glycol)					
°C	20	10	5	0	-10
kW	1.65	1.25	1	0.86	0.47
Refrigerant	R134a				
Filling volume g	380				
Global Warming Potential for R134a	1430				
Carbon dioxide equivalent t	0.543				
Pump capacity flow rate l/min	20				
Pump capacity flow pressure bar	0.5				

### 230V/50Hz (CH Plug Type SEV 1011)

230V/50Hz					
Heating capacity kW	1.2				

Cooling capacity (Water Glycol)					
°C	20	10	5	0	-10
kW	1.65	1.25	1	0.86	0.47
Refrigerant	R134a				
Filling volume g	380				
Global Warming Potential for R134a	1430				
Carbon dioxide equivalent t	0.543				
Pump capacity flow rate l/min	20				
Pump capacity flow pressure bar	0.5				

### All Benefits



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



**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](http://www.julabo.com).



**100 % Cooling capacity**  
'Active Cooling Control' for cooling available throughout the entire working temperature range, fast cool-down even at higher temperatures



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



**Connection of additional equipment**  
Stakei connections for solenoid valve, HSP booster pump and HST booster heater



**Early warning system for high/low temperature limits**  
Maximum safety for applications, optical and audible alarm, convertible to automated cut-off function