

SC5000a Recirculating Cooler

The SemiChill series offers powerful recirculating coolers. These units have been especially designed for applications in the semiconductor industry. Five models are available, with cooling capacities from 2.5 to 10 kW (air- or water-cooled). Working temperature ranges from +5 to +35 °C which can optionally be extended from -20 to +130 °C.

Also available is a selection of powerful pumps. The units can be modified to provide heater capacities up to 5 kW. Selection between different electronic modules to conform to simple or high demands such as, for example flow rate and conductivity measurement, external temperature control or integration of the coolers via analogue signals, RS232, devicenet or ethernet. A large range of accessories and options including DI filters, microfilters, USB adapters, etc. is available.

Your advantages

- For the most demanding applications
- No side vents, instruments can be placed right next to other equipment
- Handles and castor make relocation easy
- Industrial grade mains power switch and emergency cut-off
- Pressure Indicator
- Front filling port
- Low noise level
- Precise PID temperature control
- ATC3 3-Point-Calibration
- Warning and safety functions
- Modular design allows selection between different options



Technical data

Available voltage versions		Bath	
Order No.	9 5XX 050	Bath tank	Stainless steel
Available voltage versions:			
9 5XX 050.07	400V/3PNPE/50Hz (Plug 63A CEE)		
9 5XX 050.16	208-230V/3PPE/60Hz (Without Plug)		
Cooling		Other	
Cooling of compressor	1-stage Air	Sound pressure level dbA	71
		Classification	Classification III (FL)
		IP Code	IP 21
		Pump type	Immersion Pump
Electronics		Dimensions and volumes	
Temperature setting	Keypad	Weight kg	153
		Barbed fittings inner diameter	¾"
		Dimensions cm (W × L × H)	59 x 67 x 112
		Filling volume l	43 ... 60
		Pump connections	NTP¾" male
Temperature values			
Working temperature range °C	-20 ... +130		
Temperature stability °C	±0.1		
Ambient temperature °C	5 ... 40		

Performance values

400V/3PNPE/50Hz (Plug 63A CEE)

400V/3PNPE/50Hz	
Heating capacity depends on options	1
Cooling capacity (Ethanol)	
°C	20 0 -10
kW	5 2.5 1.2
Pump capacity flow rate depends on options	1
Pump capacity flow pressure depends on options	1
Viscosity max. cST	30
Refrigerant	R452A
Filling volume g	1900
Global Warming Potential for R452A	2140
Carbon dioxide equivalent t	4.066

208-230V/3PPE/60Hz (Without Plug)

208V/3PPE/60Hz	
Heating capacity depends on options	1
Cooling capacity (Ethanol)	
°C	20 0 -10
kW	5 2.5 1.2
Pump capacity flow rate depends on options	1
Pump capacity flow pressure depends on options	1
Viscosity max. cST	30
Refrigerant	R404A
Filling volume g	1400
Global Warming Potential for R404A	3922
Carbon dioxide equivalent t	5.491

230V/3PPE/60Hz	
Heating capacity depends on options	1
Cooling capacity (Ethanol)	
°C	20 0 -10
kW	5 2.5 1.2
Pump capacity flow rate depends on options	1
Pump capacity flow pressure depends on options	1
Viscosity max. cST	30
Refrigerant	R404A
Filling volume g	1400
Global Warming Potential for R404A	3922
Carbon dioxide equivalent t	5.491

All Benefits

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

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

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

For higher demands
 PID Temperature control with drift compensation and adjustable parameters, improved temperature stability for external applications, temperature stability ±0.01 °C internal, <±0.1 °C external.



Control from the external application
External Pt100 sensor connection for precise measurement and control directly in the external application



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



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



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



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



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



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



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



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



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



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



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



Clever pump system
Reliable and consistent pump capacity, electronically adjustable pump stages