

## SC10000w 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

|                                       |                                   |                                |                          |
|---------------------------------------|-----------------------------------|--------------------------------|--------------------------|
| <b>Available voltage versions</b>     |                                   | <b>Bath</b>                    |                          |
| Order No.                             | 9 5XX 101                         | Bath tank                      | Stainless steel          |
| Available voltage versions:           |                                   |                                |                          |
| 9 5XX 101.07                          | 400V/3PNPE/50Hz (Plug 63A CEE)    |                                |                          |
| 9 5XX 101.16                          | 208-230V/3PPE/60Hz (Without Plug) |                                |                          |
| <b>Cooling</b>                        |                                   | <b>Other</b>                   |                          |
| Cooling of compressor                 | 1-stage Water                     | Sound pressure level dbA       | 69                       |
| Cooling water pressure max. bar       | 6                                 | Classification                 | Classification III (FL)  |
| Cooling water difference pressure bar | 3.5 ... 6                         | IP Code                        | IP 21                    |
| Cooling water consumption l/min       | 26                                | Pump type                      | Immersion Pump           |
| <b>Electronics</b>                    |                                   | <b>Dimensions and volumes</b>  |                          |
| Temperature setting                   | Keypad                            | Weight kg                      | 155                      |
|                                       |                                   | Cooling Water Connection in    | G $\frac{3}{4}$          |
|                                       |                                   | Barbed fittings inner diameter | $\frac{3}{4}$ "          |
|                                       |                                   | Dimensions cm (W x L x H)      | 59 x 67 x 112            |
|                                       |                                   | Filling volume l               | 43 ... 60                |
|                                       |                                   | Pump connections               | NTP $\frac{3}{4}$ " male |
| <b>Temperature values</b>             |                                   |                                |                          |
| 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                               |                |
| °C   | 20    5    -10 |
| kW   | 10    5    2.5 |
| 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                               | 1800           |
| Global Warming Potential for R452A             | 2140           |
| Carbon dioxide equivalent t                    | 3.852          |

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

| 208V/3PPE/60Hz                                 |                |
|--|----------------|
| Heating capacity depends on options            | 1              |
| Cooling capacity (Ethanol)                     |                |
| °C   | 20    0    -10 |
| kW   | 10    5    2.5 |
| 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                               | 1800           |
| Global Warming Potential for R452A             | 2140           |
| Carbon dioxide equivalent t                    | 3.852          |

| 230V/3PPE/60Hz                                 |                |
|--|----------------|
| Heating capacity depends on options            | 1              |
| Cooling capacity (Ethanol)                     |                |
| °C   | 20    5    -10 |
| kW   | 10    5    2.5 |
| 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                               | 1800           |
| Global Warming Potential for R452A             | 2140           |
| Carbon dioxide equivalent t                    | 3.852          |

**All Benefits**



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



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



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



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



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



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



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



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



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



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



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



**For higher demands**  
PID Temperature control with drift compensation and adjustable parameters, improved temperature stability for external applications, temperature stability  $\pm 0.01$  °C internal,  $\leq \pm 0.1$  °C external.



**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



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



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