SC5000w SemiChill Compact Recirculating Cooler

5 models for industrial applications, up to 10 kW cooling capacity, customizable

Recirculating Cooler for industrial applications (basic model, additional options for specific requirements available).

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
- Space-saving, no lateral ventilation
- Handles and castor make relocation easy
- Industrial grade mains power switch and emergency cut-off
- Pressure gauge
- Liquid level indicator
- Front filling port
- Low noise level
- PID temperature control
- ATC3 3-point calibration
- Early warning system for low liquid level
- Warning and safety functions
- Modular design allows selection between different options
- Water cooled model

Technical Data

Order No.	9500051XXP3H0
Model series	SemiChill
Category	Recirculating Coolers
Working temperature range (°C)	-5 ... +35 Standard -20 ... +130 Option
Temperature stability (°C)	±0.1
Setting / display resolution	0.1 °C
Integrated programmer	1x10 steps
Temperature Display	LED Option

Heating capacity (kW)	12.0 Option			
Cooling capacity (Medium Ethanol)	°C	20	0	-10
	kW	5	2.5	1.2
Pump capacity flow rate (l/min)	33			
Pump capacity flow pressure (bar)	3.5 Standard			
	4.3 Option			
Bath opening / bath depth (W x L / D cm)	Ø = 7 / - cm			
Pump connections	NPT 3/4"			
Barbed fittings diameter (inner dia. / mm)	3/4"			
Filling volume liters	43 ... 60			
Refrigerant stage 1	R452A			
Filling volume refrigerant stage 1 (g)	1520			
Global Warming Potential for R452A	2140			
Carbon dioxide equivalent stage 1 (t)	3.253			
External Pt100 sensor connection	integrated			
Digital interface	RS232			
	Optional: Profibus			
Ambient temperature	5...40 °C			
Dimensions W x L x H (cm)	59 x 67 x 112			
Weight (kg)	153			
Sound pressure level (distance 1 m) max. (dBA)	69			
Classification according to DIN12876-1	Classification III (FL)			
Cooling of compressor	Water			
Available voltage versions	400 V / 3 Ph. / 50 Hz			
	208-230 V / 60 Hz			

Refrigerant specifications are valid for the 50 Hz version.

Characteristics

Display

Easy to read
Large LED temperature display for actual value and setpoint (resolution 0.1 °C)

A perfect view
Ample, easy to read VFD Comfort display for simultaneous display of 3 values, warning functions, high temperature cut-off, pump stages (resolution 0.01 °C)

Pump stage and liquid level
Backlit indicator for selected pump stages and filling volume on Presto® PLUS, Magnum 91 & Forte HT

Operation

Time saving
Comfortable and simple operation for setpoint adjustment

Temperature Control

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

Highest measuring accuracy
'**A**bsolute **T**emperature **C**alibration' for manual compensation of a temperature difference, 3-point calibration

Refrigeration Technology

Consistent cooling capacity
Easily removable venting grid for quick and easy cleaning

ACC **100 % Cooling capacity**
'**A**ctive **C**ooling **C**ontrol' for cooling available throughout the entire working temperature range, fast cool-down even at higher temperatures

S3 **For flammable bath fluids**
Classification III (FL) according to DIN 12876-1

Technical Features

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

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

RS232 **Serial connection**
RS232 interface for PC connection, e.g. for data communication and recording of measured values

Easy program control
Integrated programmer for the execution of time and temperature dependant profiles, 1 temperature profile with 10 steps max., with real time clock

Automatic control of operating time
Electronic countdown-timer function for timer-programmed unit shut-down, standby mode after programmed time expires

Warning & Safety Functions

Early warning system for low liquid level
Maximum safety for applications, optical and audible alarm, allows user to refill bath fluid before the unit shuts down

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

Enhanced protective functions
Maximum safety, adjustable high temperature cut-off or dry-running protection, additional display of setpoints permits easy and precise adjustments

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Refer to www.julabo.com for more information regarding the entire JULABO product portfolio.
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