



designed for scientists



## RC 5 basic

/// Data Sheet

Powerful recirculating chiller, designed for external cooling applications up to  $-30^{\circ}\text{C}$ .

The energy-efficient chiller is operated with an eco-friendly refrigerant and reaches a high power density. This results in a comparatively small working space in the lab.

The speed-controlled PEEK pump allows an indirect, continuous adjustment of the maximum pressure and flow rate. Due to its excellent temperature stability of about  $\pm 0,1\text{ K}$ , the RC 5 can handle even sophisticated applications. The isolated, high-quality 7l bath has an integrated hopper and drain valve, ensuring a safe and clean handling of the thermofluid. A hose can be connected to empty the bath in order to avoid direct contact with the thermofluid. The easy-to-open front flap allows an easy cleaning of the cooling unit's air filter.



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#### Key Features

- Speed-controlled refrigeration system with 1400 W cooling capacity (@20°C)
- Natural thermofluid R290
- Designed for cooling applications up to -30°C - RT
- Extended operating temperature range until 80°C
- Excellent temperature stability of about  $\pm 0,1\text{K}$  (@-10°C)
- Speed-controlled pump made of PEEK: (0,6 bar; 31l/min)
- Digital level indicator

#### Interfaces:

- RS 232 and USB

#### Scope of delivery

- RC 5 basic
- Hose olive NW 8 (2 pcs.)
- Hose olive NW 12 (2 pcs.)
- USB Cable - USB A to Micro-B, 2 m



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## Technical Data

|                                                         |                          |
|---------------------------------------------------------|--------------------------|
| Appliance type                                          | Recirculating chiller    |
| Cooling agent                                           | R290                     |
| Cooling agent quantity [g]                              | 90                       |
| Cooling agent pressure max. [bar]                       | 21                       |
| Cooling capacity (@20°C) [W]                            | 1400                     |
| Cooling capacity (@10°C) [W]                            | 1200                     |
| Cooling capacity (@0°C) [W]                             | 950                      |
| Cooling capacity (@-10°C) [W]                           | 650                      |
| Cooling capacity (@-20°C) [W]                           | 450                      |
| Cooling capacity (@-30°C) [W]                           | 200                      |
| Working temperature [°C]                                | -30 - room temp.         |
| Operating temperature min. [°C]                         | -30                      |
| Operating temperature max. (with external heating) [°C] | 80                       |
| Temperature display                                     | yes                      |
| Temperature control                                     | PID                      |
| Working temperature sensor                              | PT 100                   |
| Working temperature display                             | LED                      |
| Temperature stability DIN 12876 [K]                     | ±0.2                     |
| Display resolution [K]                                  | 0.1                      |
| Warning function optical                                | yes                      |
| Warning function acoustic                               | yes                      |
| Warning function excess temperature                     | yes                      |
| Sub-level protection                                    | yes                      |
| Filling volume [l]                                      | 5.0 - 7.0                |
| Pump type                                               | Pressure- / suction pump |
| Pump capacity adjustable                                | yes                      |
| Pump pressure max. (0 liters discharge flow) [bar]      | 0.61                     |
| Pressure pump (suction side) (0 liter flow) [bar]       | 0.45                     |
| Flow rate max. (0 bar back pressure) [l/min]            | 31                       |
| Pump connection                                         | M16x1                    |
| Calibration option                                      | yes                      |
| Technical data complies with the standard               | DIN 12876                |
| Permissible ON time [%]                                 | 100                      |
| Noise level [dB(A)]                                     | 61                       |
| Dimensions (W x H x D) [mm]                             | 310 x 546 x 490          |
| Weight [kg]                                             | 37.5                     |
| Permissible ambient temperature [°C]                    | 5 - 32                   |
| Permissible relative humidity [%]                       | 80                       |
| Protection class according to DIN EN 60529              | IP 21                    |
| RS 232 interface                                        | yes                      |
| USB interface                                           | Micro-USB                |
| Voltage [V]                                             | 230                      |
| Frequency [Hz]                                          | 50/60                    |
| Power input [W]                                         | 1100                     |
| Batteries included with the product?                    | yes                      |
| Battery Cell Type                                       | CR2032                   |
| Number of Batteries                                     | 1                        |
| Battery Weight [g]                                      | 3                        |



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|                             |                  |
|-----------------------------|------------------|
| How is the Battery packaged | within appliance |
| Battery Energy Content [Wh] | 0.69             |
| Battery Voltage [V]         | 3                |