



designed for scientists



## CBC 5 basic

/// Data Sheet

The CBC 5 basic is a powerful refrigerated and heating circulator with strong heating and cooling power for an operating temperature range of - 25 °C to + 200 °C. It is best suited for external applications thanks to its proven pressure and suction pump. High-quality insulation of the device allows for fast heat-up times and reduces heat input at low temperatures. All parameters are manageable (read out, monitored and completely documented) by software (e. g., labworldsoft(r) or NAMUR commands).

- High performance pressure/suction pump (speed-controlled)
- Industry standard LED display for maximum visibility (pump speed and temperature)



designed for scientists

- Adjustable safety circuit
- Visible and audible alarm
- Safety drain valve
- USB / RS 232 interfaces (labworldsoft(r) and enabling online updates of device software)
- Connection for external temperature probe (PT 100)
- Safety classification III (FL, DIN 12876)



designed for scientists

## Technical Data

|                                                    |                          |
|----------------------------------------------------|--------------------------|
| Appliance type                                     | Circulation thermostat   |
| Class designation acc. DIN 12876                   | III                      |
| Identification according to DIN 12876              | FL                       |
| Cooling agent                                      | R134a                    |
| Cooling agent quantity [g]                         | 230                      |
| Cooling agent pressure max. [bar]                  | 20                       |
| Heat output [W]                                    | 2500                     |
| Cooling capacity (@20°C) [W]                       | 350                      |
| Cooling capacity (@10°C) [W]                       | 320                      |
| Cooling capacity (@0°C) [W]                        | 270                      |
| Cooling capacity (@-10°C) [W]                      | 190                      |
| Cooling capacity (@-20°C) [W]                      | 80                       |
| Cooling capacity (@ -20°C; 3200 rpm) [W]           | 130                      |
| Cooling capacity (@ 20°C; 3200 rpm) [W]            | 400                      |
| Working temperature [°C]                           | -25 - 200                |
| Operating temperature min. [°C]                    | -25                      |
| Temperature display                                | yes                      |
| Temperature stability DIN 12876 (@+70°C) [±K]      | 0.02                     |
| Temperature control                                | PT 100                   |
| Working temperature sensor                         | PT 100                   |
| Safety temperature sensor                          | PT1000                   |
| Working temperature display                        | LED                      |
| Safety temperature display                         | LED                      |
| Connection for ext. temperature sensor             | PT 100                   |
| Display resolution [K]                             | 0.1                      |
| Display for operation with ext. sensor             | yes                      |
| Warning function optical                           | yes                      |
| Warning function acoustic                          | yes                      |
| Warning function excess temperature                | yes                      |
| Warning function insufficient temperature          | yes                      |
| Adjustable safety circuit [°C]                     | 0 - 260                  |
| Sub-level protection                               | yes                      |
| Filling volume [l]                                 | 5 - 7                    |
| 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                       |
| Bath depth min. [mm]                               | 150                      |
| Width bath opening [mm]                            | 172                      |
| Depth bath opening [mm]                            | 82                       |
| Calibration option                                 | yes                      |
| Technical data complies with the standard          | DIN 12876                |
| Dimensions (W x H x D) [mm]                        | 275 x 690 x 490          |
| Weight [kg]                                        | 45                       |
| Permissible ambient temperature [°C]               | 5 - 32                   |
| Permissible relative humidity [%]                  | 80                       |
| Protection class according to DIN EN 60529         | IP 21                    |



designed for scientists

|                  |                 |
|------------------|-----------------|
| RS 232 interface | yes             |
| USB interface    | yes             |
| Voltage [V]      | 230 / 100 - 115 |
| Frequency [Hz]   | 50/60           |
| Power input [W]  | 3000            |