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## CBC 5 control

/// Data Sheet

The CBC 5 control 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 TFT display for maximum visibility (pump speed, temperature)



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- 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) and optional external solenoid valves (multi-IO port)
- Safety classification III (FL, DIN 12876)
- Removable WiCo (wireless controller) enables safe remote operation, e.g. outside of a closed fume hood



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## 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]	1250
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]	±0.01
Temperature control	PID
Working temperature sensor	PT 100
Safety temperature sensor	PT1000
Working temperature display	TFT
Safety temperature display	TFT
Connection for ext. temperature sensor	PT 100
Display resolution [K]	0.01
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
Pump connection	M16x1
Bath depth min. [mm]	150
Height including bath [mm]	172
Width bath opening [mm]	82
Calibration option	yes
Technical data complies with the standard	DIN 12876
Multi-Interface	yes
Alarm output (potential-free contact) max. [V AC/DC]	30
Alarm output (potential-free contact) max. [A]	1
Solenoid valve output [VDC]	24



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Solenoid valve output max. [A]	0.8
Standby input [VDC]	5
Noise level [dB(A)]	55
Dimensions (W x H x D) [mm]	275 x 690 x 490
Weight [kg]	46.5
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	yes
Voltage [V]	100 - 115
Frequency [Hz]	50/60
Power input [W]	1750