



designed for scientists



## HRC 2 lite

/// Data Sheet

Compact refrigerated and heating circulator with powerful 400 W cooling and 1000 W heating capacity, designed for simple tempering tasks down from -10 to 100 °C.

The HRC 2 lite is the perfect peripheral device for tempering bioreactors and laboratory reactors, open bath solutions or serves as a tempering source for measuring devices. With its compact and space-saving design, the refrigerated and heating circulator even fits in confined laboratory space conditions.

The easily accessible and easy-to-clean mesh filter (stainless steel) ensures a consistently high cooling capacity over



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years. Thanks to the low filling volume of just one liter, the HRC 2 lite is able to reach the desired temperatures particularly fast. Its large working volume of 2.5 liters enables a high number of external applications without the need of refilling thermal fluids. The filling level in the reservoir can be read through the large, illuminated sight glass.

With the powerful pressure and suction pump it is possible to carry out demanding applications as well as external applications in open bath vessels in combination with a level controller. Thanks to the natural refrigerant R290, the HRC 2 lite is remarkably sustainable and well prepared for the future.

The devices of the lite series can be ideally used as peripheral devices. In order to ensure the most convenient handling of the application, they are equipped with an RS 232 and USB interface and can thus be controlled directly via the respective main device using device-to-device communication. Control and monitoring via labworldsoft® and other laboratory software is also possible.

## Technical Data

Appliance type	Refrigerated and heating circulator
Class designation acc. DIN 12876	II
Identification according to DIN 12876	FL
Cooling agent	R290
Cooling agent quantity [g]	79
Cooling agent pressure max. [bar]	21
Heat output [W]	750
Cooling capacity (@20°C) [W]	400
Cooling capacity (@10°C) [W]	350
Cooling capacity (@0°C) [W]	250
Cooling capacity (@-10°C) [W]	100
Working temperature [°C]	-10 - 100
Operating temperature min. [°C]	-10
Temperature display	yes
Temperature stability DIN 12876 (@+70°C) [K]	±0.05
Temperature stability DIN 12876 (@-10°C) [K]	±0.1
Temperature control	PID
Working temperature sensor	PT1000
Safety temperature sensor	PT1000
Working temperature display	LED
Display resolution [K]	0.1
Set temperature resolution [K]	±0.1
Warning function optical	yes
Warning function acoustic	yes
Warning function excess temperature	yes
Adjustable safety circuit [°C]	0 - 110
Filling volume [l]	1 - 3.5
Pump type	Pressure- / suction pump
Pump pressure max. (0 liters discharge flow) [bar]	0.35
Pressure pump (suction side) (0 liter flow) [bar]	0.15
Flow rate max. (0 bar back pressure) [l/min]	18
Pump connection	M16x1
Calibration option	yes
Technical data complies with the standard	DIN 12876
Permissible ON time [%]	100
Noise level [dB(A)]	51
Dimensions (W x H x D) [mm]	225 x 385 x 430
Weight [kg]	24.9
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	USB-B
Voltage [V]	115
Frequency [Hz]	50/60
Power input [W]	1000