RC 2 GREEN control

/// Data Sheet

Powerful, compact and energy-efficient recirculating chiller for cooling applications up to -30 °C. The on-demand and speed-controlled compressor, operated with natural refrigerant, achieves a cooling capacity of 800 W at minimum energy consumption.

The speed-controlled PEEK pump allows an indirect continuous adjustment of maximum pressure and flow rate. The device provides an external temperature control interface. A PT 100.30 temperature sensor is included in the scope of delivery. The wireless controller (WiCo) shows all relevant process parameters at a glance and enables comfortable and safe operation of the device.

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The integrated filling funner and drain valve enable safe and clean handling of the thermofluid. With regular cleaning, the easily accessible stainless steel woven mesh air filter guarantees consistent performance. The high-quality insulated 4 l bath reservoir allows the use of up to 2.5 l of thermofluid in the external cooling circle without refilling.

- highly efficient speed-controlled cooling unit with a cooling capacity of 800 W (@20 °C)
- natural refrigerant R290
- speed-controlled PEEK pump: (0.5 bar; 21 l/min)
- digital level indicator
- optical and acoustic warning functions
- easy-to-clean stainless steel mesh filter
- high quality insulated 4 l bath reservoir (minimum 1.5 l)

Interfaces:
- RS 232 and USB for controlling and monitoring the devices via labworldsoft® and to update the software online
- Calibratable internal temperature sensor (3 point)
- LEMO socket for connecting an external PT 100 temperature sensor

Wireless controller:
- 10 freely programmable temperature ramps with 10 steps each
- Timer/Counter Function
- Calibrateable internal and external temperature sensor (3 point)

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Technical Data

Appliance type	Recirculating chiller
Cooling agent	R290
Cooling agent quantity [g]	69
Cooling agent pressure max. [bar]	21
Cooling capacity (@20°C) [W]	800
Cooling capacity (@10°C) [W]	700
Cooling capacity (@0°C) [W]	500
Cooling capacity (@-10°C) [W]	400
Cooling capacity (@-20°C) [W]	200
Cooling capacity (@-30°C) [W]	90
Working temperature [°C]	-30 - room temp.
Operating temperature min. [°C]	-30
Operating temperature max. (with external heating) [°C]	70
Temperature display	yes
Temperature stability DIN 12876 (@-10°C) [K]	±0.15
Temperature control	PID
Working temperature sensor	PT 100
Working temperature display	TFT
Safety temperature display	TFT
Temperature stability DIN 12876 [K]	±0.15
Connection for ext. temperature sensor	PT 100
Display resolution [K]	0.01
Set temperature resolution [K]	±0.1
Warning function optical	yes
Warning function acoustic	yes
Warning function excess temperature	yes
Warning function insufficient temperature	yes
Sub-level protection	yes
Filling volume [l]	1.4 - 4.0
Pump type	Pressure- / suction pump
Pump capacity adjustable	yes
Pump pressure max. (0 liters discharge flow) [bar]	0.5
Pressure pump (suction side) (0 liter flow) [bar]	0.25
Flow rate max. (0 bar back pressure) [l/min]	21
Pump connection	M16x1
Calibration option	yes
Technical data complies with the standard	DIN 12876
Noise level [dB(A)]	61
Dimensions (W x H x D) [mm]	220 x 475 x 525
Weight [kg]	26.5
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]	230
Frequency [Hz]	50/60
Power input [W]	350

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