LAUDA

PERFORMANCE FIRST: LAUDA VARIOCOOL

- Large range of models, broad performance spectrum
- Flexible equipment options
- Easy and clear use

NEW

LAUDA Variocool
Circulation chillers

Flexible circulation chillers with a wide area of applications LAUDA Variocool

Application examples

- Cooling water supply in laboratories
- Cooling of analytical devices
- Temperature contol of bioreactors
- Supply of cooling traps

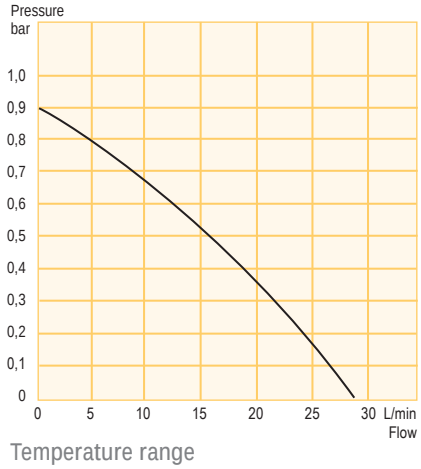
The LAUDA Variocool circulation chillers offer a broad performance spectrum for demanding temperature control tasks. The color TFT screen makes operation easy. A USB interface and alarm contact are integrated as standard. Additional interfaces are available as accessories. The interfaces are fitted to the front of the device, which means they are easy to access.

The circulation chillers with their multitude of options are very well suited to a number of different areas of application. Optional pumps, for example, enable higher supply pressure. Optional heating units, which are adapted to the cooling capacity, enable the quick heating of the connected application when needed.

Variocool
Circulation chillers with cooling capacities up to 5 kW

Variocool circulation chillers function in an operating temperature range of -20 to 40 °C. Optional heating units can be added to increase the maximum temperature range to 80 °C. For greater pressure requirements, optional pumps are available with the VC 1200 version or higher. With the exception of the VC 600, all models are also available as water-cooled versions. All devices are equipped with lockable casters. The minimal dimensions of the models from VC 600 to VC 2000 (W) mean that they can be placed under the laboratory table.

Pump characteristic Heat transfer liquid: Water



Temperature range
-20...40 °C (-20...80 °C with optional heater)

Standard accessories
USB interface · alarm contact · nipples · screw caps

Options
High-power pump · heater

Circulation chiller VC 600

Additional technical data on page 6

Technical features		VC 600	VC 1200	VC 1200 W	VC 2000	VC 2000 W
Working temperature range	°C	-20…40	-20…40	-20…40	-20…40	-20…40
Working temperature range with optional heater	°C	-20…80	-20…80	-20…80	20…80	-20…80
Temperature stability	±K	0.2	0.2	0.2	0.2	0.2
Cooling output at 20 °C	kW	0.6	1.2	1.2	2.0	2.0
Pump pressure max.	bar	0.9	0.9	0.9	0.9	0.9
Pump flow	L/min	28	28	28	28	28
Cat. No. 230 V; 50 Hz		LWG 175	LWG 176	LWG182	LWG 177	LWG 183

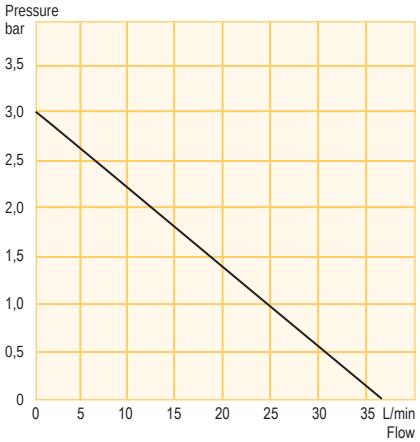
Technical features		VC 3000	VC 3000 W	VC 5000	VC 5000 W
Working temperature range	°C	-20…40	-20…40	-20…40	-20…40
Working temperature range with optional heater	°C	-20…80	-20…80	-20…80	-20…80
Temperature stability	±K	0.2	0.2	0.2	0.2
Cooling output at 20 °C	kW	3.0	3.0	5.0	5.0
Pump pressure max.	bar	3.0	3.0	3.0	3.0
Pump flow	L/min	37	37	37	37
Cat. No. 230 V; 50 Hz		LWG 178	LWG 184	LWG 279 (400 V; 3/N/PE; 50 Hz)	LWG 285 (400 V; 3/N/PE; 50 Hz)

Variocool
Circulation chillers with cooling capacities up to 10 kW

The highly efficient tower design circulation chillers provide cooling capacities of between 7.0 and 10.0 kW. Options like heating or high-pressure pumps add to the devices' areas of application. The models are available in air or water-cooled design. All models are equipped with casters which can be controlled and locked.

Circulation chiller VC 7000

Pump characteristic Heat transfer liquid: Water



Temperature range
-20...40 °C (-20...80 °C with optional heater)

Standard accessories
USB interface · alarm contact · nipples · screw caps · cooling water tubes

Optionen
High-power pump · heater

Additional technical data on page 6

Technical features		VC 7000	VC 7000 W	VC 10000	VC 10000 W
Working temperature range	°C	-20…40	-20…40	-20…40	-20…40
Working temperature range with optional heater	°C	-20…80	-20…80	-20…80	-20…80
Temperature stability	±K	0.5	0.5	0.5	0.5
Cooling output at 20 °C	kW	7.0	7.0	10.0	10.0
Pump pressure max.	bar	3.0	3.0	3.0	3.0
Pump flow	L/min	37	37	37	37
Cat. No. 230 V; 50 Hz		LWG 280	LWG 286	LWG 281	LWG 287

Your advantages at a glance

	The Variocool advantages	Your benefits
	• 13 types in air or water-cooled design with cooling capacities from 600 W up to 10 kW • All models with electronic expansion valve • Compact design	• The appropriate solution to every requirement • Good control accuracy and cost savings thanks to reduced energy usage • Saves valuable lab space
	• Display and operation via color TFT screen and membrane keyboard • Electronic fill gauge on the display and low level alrm when fluid level too low	• Easy and clear setup options • Early detection of insufficient fluid
 	• Pump and heating option	• Flexible customization to applications
 	• USB interface and alarm contact standard at the front of the device • Two slots for analog, RS-232/485, contact, Pt100/LiBus or Profibus module	• Easy accessibility • Flexible control options
	• Front grid can be easily removed • Tower design for larger models (from VC 7000) • Microchannel condensers in all air-cooled models	• Easy to clean condenser • Space-saving setup • Reduced casing size and lower refrigerant quantity

Accessories (excerpt)

Cooling water tubes, EPDM

Temp. range from -40 up to 100 °C and pressure range max. 20 bar

Cat. No.	Description	d_i (mm)	d_e (mm)
RKJ 031	EPDM tube, fiber-reinforced	13	19
RKJ 032	EPDM tube, fiber-reinforced	19	27
RKJ 033	EPDM tube, fiber-reinforced	25	34

RKJ 031

Heat transfer liquids

Designation	Temp.-range	Cat. No. 5 L	10 L	20 L
Aqua 90	5…90 °C	LZB 120	LZB 220	LZB 320
Kryo 30	-30…90 °C	LZB 109	LZB 209	LZB 309

Interface modules

Cat. No.	Description
LRZ 912	Analog module, 2 x In, 2 x Out, 0(4)…20 mA or 0…10 V
LRZ 913	RS 232/485 interface, electrically isolated, 9-pin SUB-D
LRZ 914	Contact module NAMUR, 1 x In, 1 x Out, NE 28, 2 DIN sockets
LRZ 915	Contact module SUB-D, 3 x In, 3 x Out, 15-pin SUB-D
LRZ 917	Profibus interface, electrically isolated, 9-pin SUB-D
LRZ 918	Pt100/LiBus module

LRZ 912 LRZ 913 LRZ 914 LRZ 915 LRZ 917

LRZ 918

Type	Working temperature range	Working temperature range with optional heater	Temperature stability	Ambient temperature range	Cooling output ((measured with ethanol, 20 °C ambient temperature) 20 °C	10 °C	0 °C	-10 °C	-20 °C	Heater power optional heater	Pump pressure max.	Pump flow max.	Pump connection thread (i. d. mm)	Filling volume max.	Dimensions (WxDxH)	Protection level	Weight	Power supply	Cat. No.
	°C	°C	±K	°C	kW	kW	kW	kW	kW	kW	bar	L/min	"	L	mm		kg		
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VC 600	-20…40	-20…80	0.2	5…40	0.60	0.50	0.36	0.21	0.08	1.5	0.9	28	M16 x 1 (10)	8	350x480x595	IP32	39	230 V; 50 Hz	LWG 175
VC 1200	-20…40	-20…80	0.2	5…40	1.20	1.00	0.70	0.40	0.18	1.5	0.9	28	G 3/4 (15)	15	450x550x650	IP32	51	230 V; 50 Hz	LWG 176
VC 1200 W	-20…40	-20…80	0.2	5…40	1.20	1.00	0.70	0.40	0.18	1.5	0.9	28	G 3/4 (15)	15	450x550x650	IP32	51	230 V; 50 Hz	LWG 182
VC 2000	-20…40	-20…80	0.2	5…40	2.00	1.50	1.06	0.68	0.38	1.5	0.9	28	G 3/4 (15)	15	450x550x650	IP32	65	230 V; 50 Hz	LWG 177
VC 2000 W	-20…40	-20…80	0.2	5…40	2.00	1.50	1.06	0.68	0.38	1.5	0.9	28	G 3/4 (15)	15	450x550x650	IP32	65	230 V; 50 Hz	LWG 183
VC 3000	-20…40	-20…80	0.2	5…40	3.00	2.40	1.68	1.03	0.60	1.5	3.0	37	G 3/4 (15)	33	550x650x970	IP32	89	230 V; 50 Hz	LWG 178
VC 3000 W	-20…40	-20…80	0.2	5…40	3.00	2.40	1.68	1.03	0.60	1.5	3.0	37	G 3/4 (15)	33	550x650x970	IP32	89	230 V; 50 Hz	LWG 184
VC 5000	-20…40	-20…80	0.2	5…40	5.00	3.90	2.75	1.70	1.00	4.5	3.0	37	G 3/4 (15)	33	550x650x970	IP32	98	400 V; 3/N/PE; 50 Hz	LWG 279
VC 5000 W	-20…40	-20…80	0.2	5…40	5.00	3.90	2.75	1.70	1.00	4.5	3.0	37	G 3/4 (15)	33	550x650x970	IP32	98	400 V; 3/N/PE; 50 Hz	LWG 285
VC 7000	-20…40	-20…80	0.5	5…40	7.00	5.30	3.70	2.40	1.50	4.5	3.0	37	G 1 1/4 (20)	64	650x670x1250	IP32	128	400 V; 3/N/PE; 50 Hz	LWG 280
VC 7000 W	-20…40	-20…80	0.5	5…40	7.00	5.30	3.70	2.40	1.50	4.5	3.0	37	G 1 1/4 (20)	64	650x670x1250	IP32	132	400 V; 3/N/PE; 50 Hz	LWG 286
VC 10000	-20…40	-20…80	0.5	5…40	10.00	7.60	5.30	3.50	2.00	9.0	3.0	37	G 1 1/4 (20)	64	650x670x1250	IP32	174	400 V; 3/N/PE; 50 Hz	LWG 281
VC 10000 W	-20…40	-20…80	0.5	5…40	10.00	7.60	5.30	3.50	2.00	9.0	3.0	37	G 1 1/4 (20)	64	650x670x1250	IP32	179	400 V; 3/N/PE; 50 Hz	LWG 287

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