

°LAUDA



OVERALL BROCHURE CONSTANT TEMPERATURE EQUIPMENT 2024/2025

°FAHRENHEIT. °CELSIUS. °LAUDA.

LAUDA CIRCULATION CHILLERS

Specific application examples

- Rotary evaporators
- Distillation systems
- Spectrometers
- Supply of cooling traps
- Digital printing
- Laser cutting
- Laser sorting
- Point welding
- Injection molding
- Tunnel drilling machines
- Centralized cooling water supply



Circulation chillers

Heating thermostats

Cooling thermostats

Water baths

Calibration thermostats

Deep-freezers

Shakers

Stills

Digital products

Accessories, Service

LAUDA Microcool

Circulation chillers for reliable continuous operation in laboratory and research applications from -10 to 40°C

-10°C  40°C

Compact circulation chillers with outstanding price-performance ratio

The LAUDA Microcool line of user-friendly circulation chillers consists of four compact models with large LED display and membrane keypad, offering cooling capacities of 0.25 to 1.2 kW. The highlight of these devices is the premium quality centrifugal pump with magnetic coupling – unique to this price category: Magnetic coupling of pump and electric motor prevents any kind of seal issue from arising on the pump shaft, eliminating the chance for any fluid to leak.



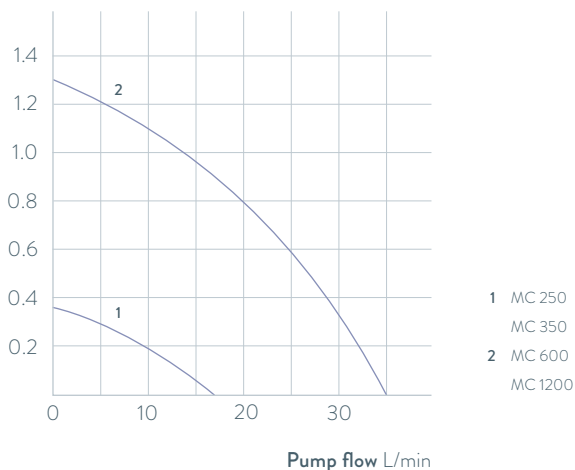
Illuminated viewing glass enables quick identification of the fill level



Standard-issue RS-232 interface and alarm contact

PUMP CHARACTERISTICS Heat transfer liquid: Water

Pressure bar



Important functions

- Auto-start timer and auto shutdown function
- Filling opening at the top, drain connection at the rear
- Cooling capacity adapted via solenoid valve control, including automatic compressor control

Included accessories

Nipples, screw caps

Further accessories

Tubing

All technical data and power supply variants can be found in the ›Technical data‹ section.

More at www.lauda.de/de/1764



LAUDA Microcool

The compact circulation chillers MC 250 and MC 350 fit effortlessly on a lab bench. Somewhat larger models are also available having 600 and 1200 watts of cooling capacity and which can be positioned on the floor under a lab bench to save space.



LAUDA Ultracool

Energy-efficient process circulation chillers from -10 to 35°C

-10°C  35°C

LAUDA Ultracool circulation chillers with an energy saving of up to 50 percent

Developed with a focus on energy efficiency, the LAUDA Ultracool circulation chillers make a pivotal contribution to reducing your operating costs. Depending on the operating conditions, the devices make it possible to reduce energy costs by up to 50 percent, with payback times of less than one year. The innovative operating concept enables the LAUDA Ultracool circulation chillers to be conveniently monitored and controlled from a distance – via a connected remote control or the integrated web server on a PC or laptop or connected to the LAUDA.LIVE Cloud via a 4G wireless gateway. This allows comfortable operation via PC or laptop.



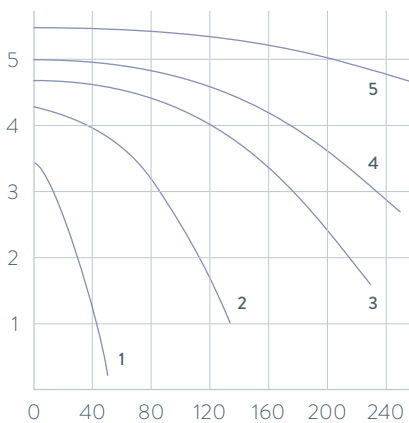
Suitable for outdoor installation (IP54)



LAUDA Ultracool UC 2/UC 4 in a compact size

PUMP CHARACTERISTIC Standard pumps (3 bar), 50 Hz; Heat transfer liquid: Water

Pressure bar



- 5 UC 80, UC 100
- 4 UC 65
- 3 UC 50
- 2 UC 8, UC 14, UC 24
- 1 UC 2, UC 4

Important functions

- High energy efficiency results in low operating costs
- Operation via LCD remote control unit or web server
- Increased temperature stability of $\pm 0.5\text{ K}$
- Remote monitoring and maintenance via LAUDA.LIVE

Included accessories

Ethernet interface, remote control unit, stainless steel connections

Further accessories

Hose kits, reverse flow protection, 4G wireless gateway

All technical data and power supply variants can be found in the [Technical data](#) section.

More at www.lauda.de/de/1778



LAUDA Ultracool

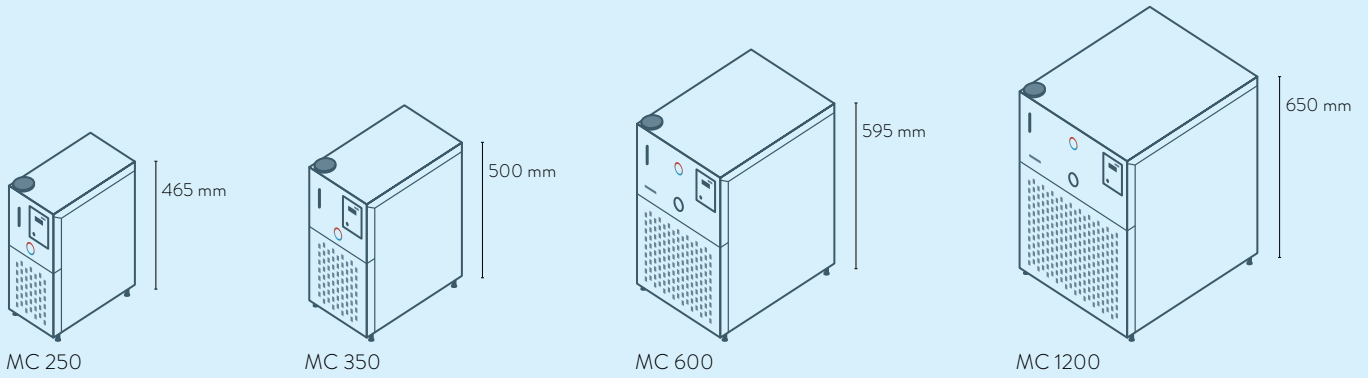
The energy-efficient LAUDA Ultracool circulation chillers comply with the Ecodesign Directive 2009/125/EC. This defines performance requirements with regard to energy efficiency (SEPR indices) that process circulation chillers in this performance class must fulfill. LAUDA Ultracool chillers meet and some even exceed these requirements. Depending on the operating conditions, the new circulation chillers are up to 50 percent more energy-efficient than conventional models.



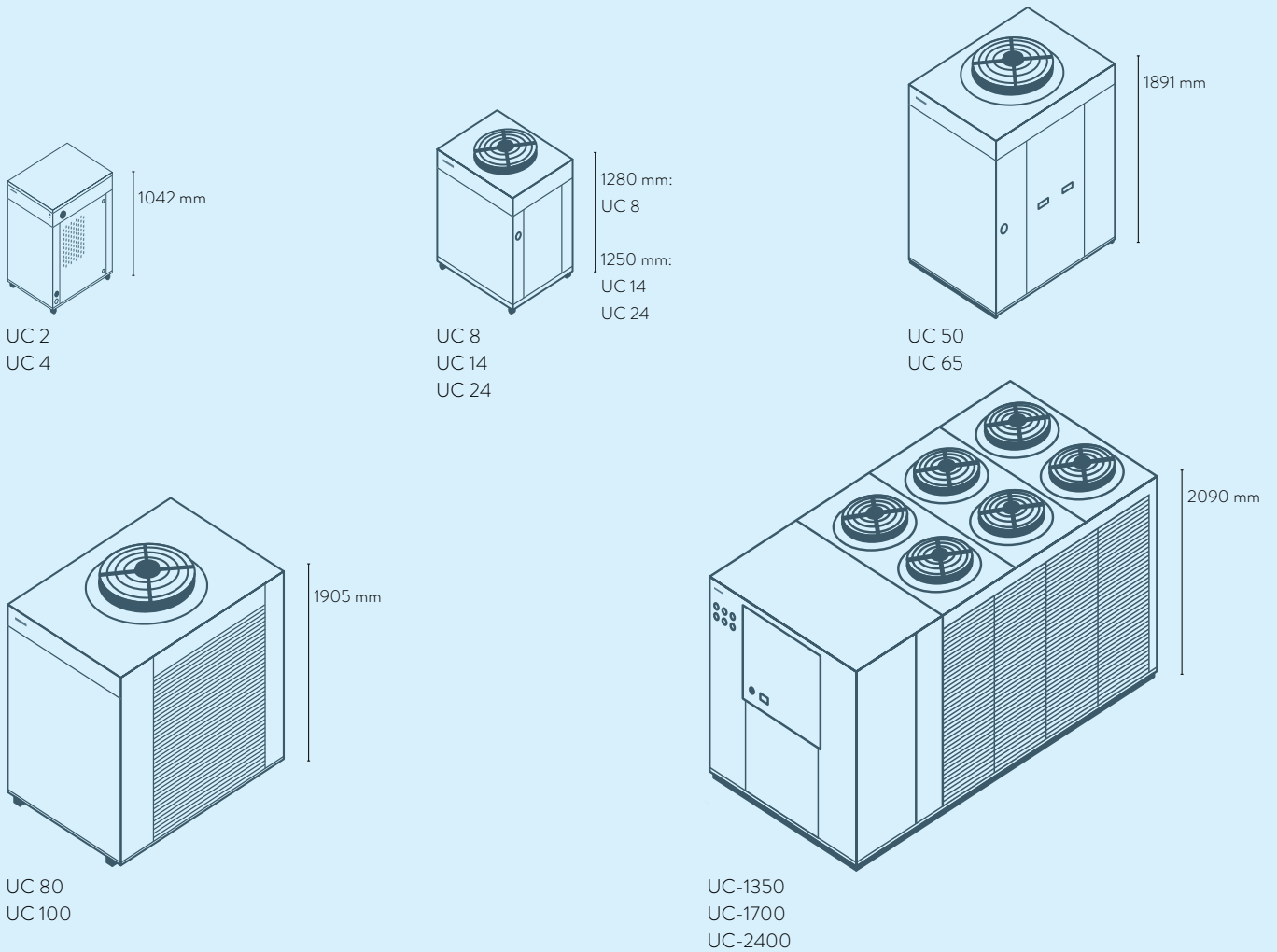
LAUDA Circulation chillers

Device type overview

LAUDA Microcool / Page 50



LAUDA Ultracool / Page 52



LAUDA Circulation chillers

Interfaces

	Pt 100 (1)	Pt 100 (2)	USB	Ethernet	RS-232 / 485	Analog	Namur contact	D-Sub contact	PROFIBUS	EtherCAT M8	EtherCAT RJ45	Modbus	Malfunction contact	Number of module slots, large	Number of module slots, small
LAUDA Microcool / Page 50	-	-	-	-	RS-232	-	-	-	-	-	-	-	S	-	-
LAUDA Ultracool / Page 52	-	-	-	S*	-	-	-	-	-	-	-	-	S	-	-

S = Series standard

S* = Ethernet with Modbus TCP/IP protocol

LAUDA Circulation chillers

Function overview

Operating element	Microcool	Ultracool
Display	7-Segment	LCD
Mode of operation	3-button	6-button
1-point calibration	✓	-
Programmer, programs/segments	-	-
Programmer, tolerance range function	-	-
Graphic temperature profile display	-	-
Pump pressure display (analog)	- / ✓	-
Pump pressure display (digital)	-	✓
Adjustable bypass	-	-
Level indicator (analog)	✓	-
Level indicator (digital)	-	-
Standby timer	✓	✓
Flow control instrument	-	-
Overflow	✓	-
Low-level alarm	✓	✓
Drain tap	-	✓
Drain screw	✓	-

LAUDA Circulation chillers

Technical data according to DIN 12876 standard

Device type	Working temperature range °C	Temperature stability* ±K	Ambient temperature range °C	Cooling of the refrigerating machine	Heater power max. kW	Cooling output kW					Pump pressure max. bar	Pump flow max. pressure L/min	Pump connection thread	Bath volume min. L
						20 °C	10 °C	0 °C	-10 °C	-20 °C				
LAUDA Microcool / Page 50														
MC 250	-10 ... 40	0.50	5 ... 40	Air	-	0.25	0.20	0.15	0.09	-	0.35	16	Ø 10 mm	2.0
MC 350	-10 ... 40	0.50	5 ... 40	Air	-	0.35	0.27	0.20	0.12	-	0.35	16	Ø 10 mm	4.0
MC 600	-10 ... 40	0.50	5 ... 40	Air	-	0.60	0.50	0.36	0.15	-	1.3	35	G ¾	4.0
MC 1200	-10 ... 40	0.50	5 ... 40	Air	-	1.20	1.05	0.75	0.40	-	1.3	35	G ¾	7.0

Bath volume max. L	Dimensions (W x D x H) mm	Protection Rating	Noise level dB (A)	Weight kg	Loading max. kW	Power supply V; Hz	Part Number	Device type
4.0	200 x 350 x 465	IP 32	60	25.0	0.2	230 V; 50 Hz	L001046*	MC 250
7.0	240 x 400 x 500	IP 32	60	34.0	0.5	220 V; 60 Hz / 230 V; 50 Hz	L001047*	MC 350
8.0	350 x 480 x 595	IP 32	57	50.0	0.7	230 V; 50 Hz	L001048*	MC 600
14.0	450 x 550 x 650	IP 32	59	63.0	1.2	230 V; 50 Hz	L001049*	MC 1200

*Utilises traditional refrigerants (HFCs) in accordance with European legislation to control F-gases (EU) 573/2024. Detailed information can be found on the respective product detail page of the order number at www.lauda.de

LAUDA Circulation chillers

Technical data

Device type	Working temperature range °C	Temperature stability ±K	Ambient temperature range °C	Cooling output at water outlet temperature ¹ kW								Number of refrigerant circuits	Motor fan			Max. discharge pressure bar
				35 - 25 °C	20 °C	15 °C	10 °C	5 °C	0 °C	-5 °C	-10 °C		No.	kW	m ³ /h	
LAUDA Ultracool / Page 52																
UC 2	-10...35	0.5	-15...50	3.10	3.10	2.80	2.40	2.00	1.70	1.40	1.20	1	1	0.2	3050	3.4
UC 2	-10...35	0.5	-15...50	3.10	3.10	2.80	2.40	2.00	1.70	1.40	1.20	1	1	0.2	3050	5.5
UC 4	-10...35	0.5	-15...50	6.10	6.10	5.50	4.80	3.90	3.30	2.80	2.40	1	1	0.2	3050	3.4
UC 4	-10...35	0.5	-15...50	6.10	6.10	5.50	4.80	3.90	3.30	2.80	2.40	1	1	0.2	3050	5.5
UC 8	-10...35	0.5	-15...50	13.3	13.3	12.0	10.2	8.5	7.0	5.4	4.4	1	1	0.5	4500	5.6
UC 8	-10...35	0.5	-15...50	13.3	13.3	12.0	10.2	8.5	7.0	5.4	4.4	1	1	0.5	4500	4.2
UC 14	-10...35	0.5	-15...50	22.4	20.3	18.4	15.8	13.4	11.1	9.3	7.6	1	1	1.0	7500	5.6
UC 14	-10...35	0.5	-15...50	22.4	20.3	18.4	15.8	13.4	11.1	9.3	7.6	1	1	1.0	7500	4.2
UC 24	-10...35	0.5	-15...50	34.0	30.9	28.1	24.3	20.8	17.3	14.5	12.0	1	1	1.0	7500	5.8
UC 24	-10...35	0.5	-15...50	34.0	30.9	28.1	24.3	20.8	17.3	14.5	12.0	1	1	1.0	7500	4.2
UC 50	-10...35	0.5	-15...50	67.5	65.6	59.4	51.2	43.7	36.4	30.4	25.2	1	1	2.6	19000	6.5
UC 50	-10...35	0.5	-15...50	67.5	65.6	59.4	51.2	43.7	36.4	30.4	25.2	1	1	2.6	19000	4.6
UC 65	-10...35	0.5	-15...50	87.5	85.2	77.4	66.9	57.3	47.8	40.1	33.3	1	1	2.6	19000	6.9
UC 65	-10...35	0.5	-15...50	87.5	85.2	77.4	66.9	57.3	47.8	40.1	33.3	1	1	2.6	19000	5.0
UC 80	-10...35	0,5	-15...50	104.3	101.4	91.8	79.0	67.5	56.2	47.1	39.0	1	1	3.0	24000	5.4
UC 80	-10...35	0,5	-15...50	104.3	101.4	91.8	79.0	67.5	56.2	47.1	39.0	1	1	3.0	24000	5.2
UC 100	-10...35	0,5	-15...50	124.7	121.4	110.2	95.3	81.7	68.3	57.5	47.8	1	1	3.0	24000	5.4
UC 100	-10...35	0,5	-15...50	124.7	121.4	110.2	95.3	81.7	68.3	57.5	47.8	1	1	3.0	24000	5.2
UC-1350	-5...25	2	-15...45	182.1	182.1	163.7	139.2	113.7	90.0	69.8	-	2	6	3.6	57000	5.5
UC-1700	-5...25	2	-15...45	228.4	228.4	205.9	175.7	144.6	115.6	90.8	-	2	6	3.6	55200	5.2
UC-2400	-5...25	2	-15...45	336.9	336.9	308.8	265.0	223.1	182.8	148.2	-	2	6	7.5	66000	5.2

¹ at 25 °C ambient temperature

² Rp = G = BSP (internal screw thread acc. to British Standard Pipe)

Pump flow max. L/min	Nominal discharge pressure bar	Pump flow nominal L/min	Pump connection thread ²	Volume water tank L	Dimensions (W x D x H) mm	Protection Rating	Noise level dB (A)	Weight kg	Loading nominal kW	Max. fuse A	Power supply V; Hz	SEPR	Part Number	Device type
42	3.3	5.6	Rp ½	12	510×680×1042	IP 32	53.5	115	0.8	16	230 V; 50 Hz	6.24	L003509*	UC 2
68	5.3	5.6	Rp ½	12	510×680×1042	IP 32	53.5	115	1.6	16	230 V; 50 Hz	6.24	L003510*	UC 2
42	2.8	13.8	Rp ½	12	510×680×1042	IP 32	57.9	115	1.8	16	230 V; 50 Hz	5.23	L003511*	UC 4
68	5.0	13.8	Rp ½	12	510×680×1042	IP 32	57.9	115	2.0	16	230 V; 50 Hz	5.23	L003512*	UC 4
133	5.3	26.6	Rp 1	35	720×910×1280	IP 54	61.0	150	3.8	25	400 V; 3/PE; 50 Hz	6.44	L002944*	UC 8
130	3.5	26.6	Rp 1	35	720×910×1280	IP 54	61.0	150	3.8	25	400 V; 3/PE; 50 Hz / 460 V; 3/PE; 60 Hz	6.44	L002853*	UC 8
133	5.3	43.8	Rp 1	35	720×910×1250	IP 54	64.7	175	5.4	25	400 V; 3/PE; 50 Hz	6.41	L002946*	UC 14
130	3.2	43.8	Rp 1	35	720×910×1250	IP 54	64.7	175	5.4	25	400 V; 3/PE; 50 Hz / 460 V; 3/PE; 60 Hz	6.41	L002854*	UC 14
200	4.9	84.1	Rp 1	35	720×910×1250	IP 54	64.7	180	9.5	32	400 V; 3/PE; 50 Hz	5.63	L002947*	UC 24
130	3.8	84.1	Rp 1	35	720×910×1250	IP 54	64.7	180	9.8	32	400 V; 3/PE; 50 Hz / 460 V; 3/PE; 60 Hz	5.63	L002855*	UC 24
250	5.5	150.0	Rp 1½	210	1040×1435×1890	IP 54	68.7	410	16.5	50	400 V; 3/PE; 50 Hz	5.37	L002948*	UC 50
230	3.1	150.0	Rp 1½	210	1040×1435×1890	IP 54	68.7	410	15.8	50	400 V; 3/PE; 50 Hz / 460 V; 3/PE; 60 Hz	5.37	L002856*	UC 50
367	6.5	196.0	Rp 1½	210	1040×1435×1890	IP 54	69.5	440	23.6	63	400 V; 3/PE; 50 Hz	5.16	L002949*	UC 65
250	3.3	196.0	Rp 1½	210	1040×1435×1890	IP 54	69.5	440	20.4	63	400 V; 3/PE; 50 Hz / 460 V; 3/PE; 60 Hz	5.16	L002857*	UC 65
367	4.6	250.0	Rp 2½	125	1256×1706×1905	IP 54	67.5	700	23.0	80	400 V; 3/PE; 50 Hz / 460 V; 3/PE; 60 Hz	6.87	L003684*	UC 80
500	5.1	250.0	Rp 2½	125	1256×1706×1905	IP 54	67.5	700	23.3	80	400 V; 3/PE; 50 Hz	6.87	L003686*	UC 80
367	3.8	250.0	Rp 2½	125	1256×1706×1905	IP 54	69.3	700	29.9	80	400 V; 3/PE; 50 Hz / 460 V; 3/PE; 60 Hz	6.20	L003685*	UC 100
500	5.1	300.0	Rp 2½	125	1256×1706×1905	IP 54	69.3	700	30.2	80	400 V; 3/PE; 50 Hz	6.87	L003687*	UC 100
500	4.5	392.0	Rp 2½	500	1660×3400×2090	IP 54	62.2	1570	43.8	150	400 V; 3/PE; 50 Hz	-	E6135221*	UC-1350
670	3.4	494.0	Rp 2½	500	1660×3400×2090	IP 54	61.3	1630	54.9	150	400 V; 3/PE; 50 Hz	-	E6170221*	UC-1700
970	3.6	733.0	DIN-2566 DN80	500	1660×3585×2090	IP 54	62.7	1690	71.4	200	400 V; 3/PE; 50 Hz	-	E6240221*	UC-2400

* Utilises traditional refrigerants (HFCs) in accordance with European legislation to control F-gases (EU) 573/2024. Detailed information can be found on the respective product detail page of the order number at www.lauda.de

LAUDA Circulation chillers

Power supply variants

Device type	Power supply V; Hz	Pump pressure max. bar	Pump flow max. pressure L/min	Loading max. kW	Plug code*	Part Number	Device type	Power supply V; Hz	Pump pressure max. bar	Pump flow max. pressure L/min	Loading max. kW	Plug code*	Part Number
LAUDA Microcool / Page 50													
MC 250	115 V; 60 Hz	0.4	16	0.2	14	L001066	MC 600	115 V; 60 Hz	1.3	35	0.8	14	L001068
MC 250	220 V; 60 Hz	0.4	16	0.2	43	L001061	MC 600	220 V; 60 Hz	1.3	35	0.7	43	L001063
MC 250	230 V; 50 Hz	0.4	16	0.2	42	L001051	MC 600	230 V; 50 Hz	1.3	35	0.7	42	L001053
MC 350	100 V; 50/60 Hz	0.4	16	0.5	14	L001072	MC 1200	115 V; 60 Hz	1.3	35	1.1	14	L001069
MC 350	115 V; 60 Hz	0.4	16	0.5	14	L001067	MC 1200	220 V; 60 Hz	1.3	35	1.2	43	L001064
MC 350	220 V; 60 Hz / 230 V; 50 Hz	0.4	16	0.5	42	L001052	MC 1200	230 V; 50 Hz	1.3	35	1.2	42	L001054
LAUDA Ultracool / Page 52													
UC 2	230 V; 60 Hz	3.5	50	1.1	-	L003513	UC-1350	460 V; 3/PE; 60 Hz	5.4	600	55.3	-	E6135241
UC 2	230 V; 60 Hz	5.0	80	1.3	-	L003533	UC-1700	460 V; 3/PE; 60 Hz	5.4	600	70.2	-	E6170241
UC 4	230 V; 60 Hz	3.5	50	1.9	-	L003514	UC-2400	460 V; 3/PE; 60 Hz	3.7	1170	96.1	-	E6240241
UC 4	230 V; 60 Hz	5.0	80	2.1	-	L003534							

*All data for the plug codes can be found on page 174

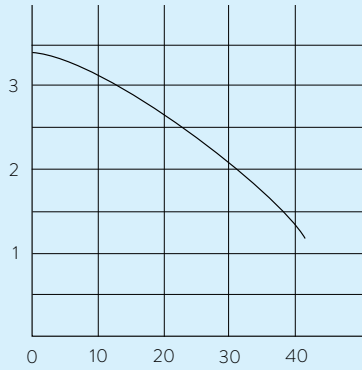
LAUDA Circulation chillers

More characteristics

LAUDA Ultracool / Page 52

PUMP CHARACTERISTIC Heat transfer liquid: Water

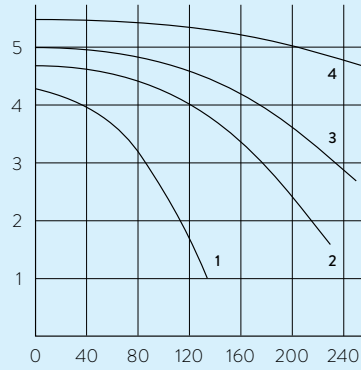
Pressure bar



UC 2, UC 4

PUMP CHARACTERISTIC Heat transfer liquid: Water

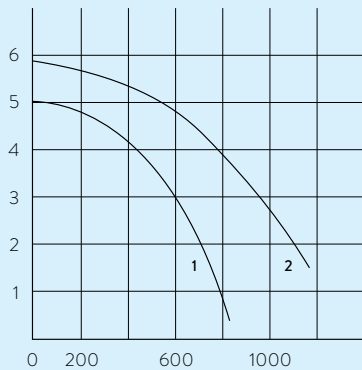
Pressure bar



- 4 UC 80, UC 100
- 3 UC 65
- 2 UC 50
- 1 UC 8, UC 14, UC 24

PUMP CHARACTERISTIC Heat transfer liquid: Water

Pressure bar



- 1 UC-1350
UC-1700
- 2 UC-2400

