

PRODUCT DATA SHEET

Standing: 2025-06-03

LAUDA Universa U 12 M

Heating thermostat, 200-240 V; 50/60 Hz

Part Number: L003777

Features

- Bath circulation thermostat with advanced electronics ensures precise control accuracy
- Future-proof thanks to modularity: LAUDA Universa with interchangeable control head and heating/cooling base allows flexible adaptation to current and future requirements.
- Clear overview, intuitive operation: The 5-inch colour TFT display simultaneously shows temperature values with a progression graph, offers clear menu navigation in six languages and clear operating status icons - easily controlled via cursor and soft keys.
- Focus on safety: The dedicated Tmax button provides convenient access to the essential overtemperature protection setting during commissioning.
- Versatile pressure-suction pump: The LAUDA Varioflex pump, a powerful pressure-suction pump, offers eight selectable performance levels, adjustable flow rate distribution for internal/external circulation for optimal volume flow and pressure
- Ball bearing pump for extreme requirements: Guarantees safe operation with highly viscous and dense heat transfer fluids as well as with impurities in the temperature control bath.
- Easily accessible front switch on the control head allows the pump output to be adjusted during operation.
- Adaptive bath edge ventilation (patent application): - Prevents icing and condensation - Stops water entering the bath - Blocks vapors to protect electronics. To increase operational safety and extend service life.
- Extensive functionality with programmer, safe mode, calibration options, controller self-adaptation and weekly planner for precise and flexible process control.
- Wireless communication: Integrated WLAN enables effortless connection with PC, tablet and smartphone.
- Intelligent remote control and monitoring: Integrated web server allows flexible remote control in the company network via the LAUDA Command app or browser-based, secured by PKI and 2-factor authentication. The connection to LAUDA.LIVE enables global, cloud-based data analysis and remote maintenance.
- Maximum networking: Comprehensive connectivity for almost any application thanks to standard Ethernet, USB and interface for an external Pt100 as well as eleven optional interface modules.
- Comprehensive safety functions: - Effective over- and under-level protection - Adjustable overtemperature protection with acoustic alarm - Automatic system diagnostics at start-up with alarm and error message display - Smart temperature control media management with automatic limit value adjustment. For reliable operation and improved safety of your valuable samples.



Reserve technical changes

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WEEE-Reg.-Nr.: DE 66 42 40 57

Kommanditgesellschaft: Sitz Lauda-Königshofen
Registergericht Mannheim • HRA 560069

Persönlich haftende Gesellschafterin:
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Registergericht Mannheim • HRB 560226

Geschäftsführer:
Dr. Gunther Wobser (Vors.), Dr. Mario Englert,
Dr. Marc Stricker
Beirat: Dr. Gerhard Wobser

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Liability

- LAUDA shall be liable for the contractually compliant execution of the services rendered by LAUDA in accordance with the recognised rules of technology as well as the relevant standards and regulations binding for the object of performance.



Working temperature min.
70 °C



Working temperature max.
300 °C

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Technical Features

Working temperature range	70 ... 300 °C
Working temperature range with external cooling	20 ... 300 °C
Operating temperature range	-30 ... 300 °C
Ambient temperature range	5 ... 40 °C
Temperature stability	0.01 ± K
Heating capacity range	2.8 ... 3.7 kW
Current max.	16 A
Size of bath (W x D x H)	200 x 200 x 200 mm
Bath opening (WxT)	200 x 200 mm
Bath volume min. / max.	8.5 / 13.0 L
Pump Pressure max.	0,7 bar
Pump suction max.	0,4 bar
Pump flow rate max. (pressure)	25 L/min
Pump Flow rate max. (suction)	23 L/min
In / Outlet connection thread (outside)	M16 x 1
In / Outlet Ø olives	13 mm
Overall dimensions (WxDxH)	280 x 450 x 497 mm
Weight	19 kg
Power supply	200-240 V, 50/60 Hz
Power plug	Power cord with plug (NEMA 6-20P)

Reserve technical changes

Standard accessories

- 1 Bath cover
- Pump connection set with M16x1 stainless steel connections
- 2 screw caps, 2 closing plugs
- 2 nipples 13 mm for pump connectors
- Cooling coil with M16x1 stainless steel connections and plastic caps

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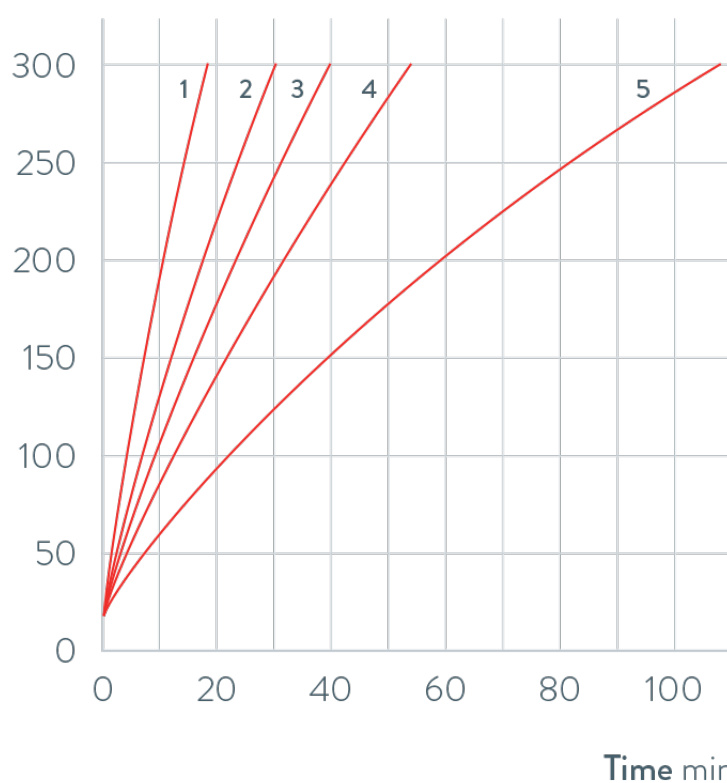
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HEATING PERFORMANCE Heat transfer liquid: Water

Bath temperature °C



- 1 U 8 M
- 2 U 12 M
- 3 U 16 M
- 4 U 20 M
- 5 U 40 M

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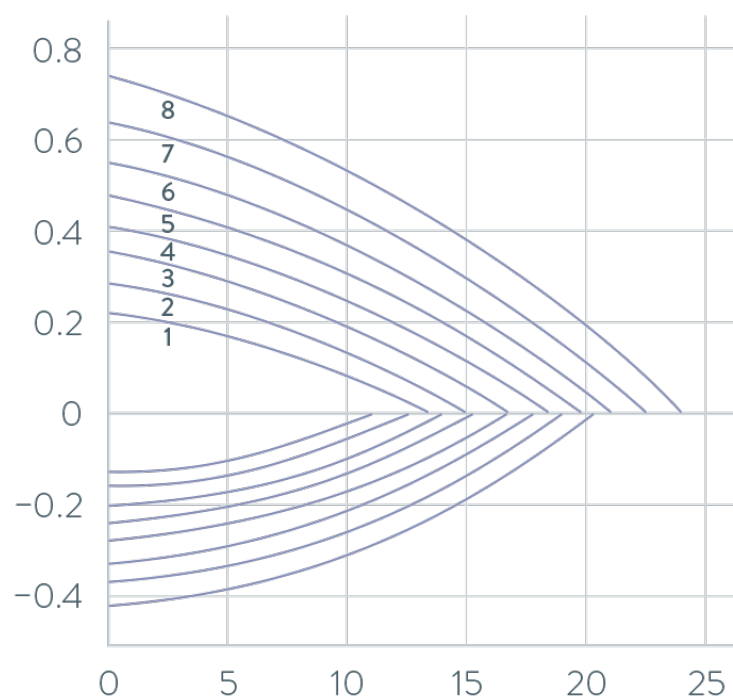
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PUMP CHARACTERISTIC Heat transfer liquid: Water

Pressure bar



Suction

Flow rate L/min

- 1 Stage 1
- 2 Stage 2
- 3 Stage 3
- 4 Stage 4
- 5 Stage 5
- 6 Stage 6
- 7 Stage 7
- 8 Stage 8

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