

PRODUCT DATA SHEET

Standing: 2024-09-16

LAUDA Integral IN 280 XTW Process thermostat
400 V; 3/PE; 50 Hz & 460 V; 3/PE; 60 Hz
Part Number: L002685

Features

- Process thermostat with integrated cooling system for dynamic temperature control within external circuits
- Coloured TFT display for simultaneous indication of actual & set values and graphic illustration of the temperature profile
- Clear text menu navigation, six selectable languages DE, EN, FR, ES, IT, RU
- Management of heat transfer liquids with stored properties
- Easy input via cursor and soft keys. Additional Tmax key for overtemperature protection
- SelfCheck Assistant for system diagnosis
- Fully electronic continuous controller with PID action for internal & external control
- Self adapt function for determination of control parameters
- PowerAdapt system for the use of the maximum possible amount of heat permitted by the power supply system
- Low-level and adjustable over-temperature protection with acoustic alarm for use with flammable and non-flammable liquids
- Powerful LAUDA Variopump (pressure pump) with 8 selectable output levels or control of outflow pressure
- USB and Ethernet interface equipped as standard
- Port for external Pt100 integrated, second external Pt100 feasible via interface module
- Remote fault indication through floating contact
- Option for upgrading up to 2 additional interfaces (RS 232/485, Profibus, analogue, contact or EtherCAT module)
- Integrated and adjustable bypass
- Programmer with 150 temperature/time segments that can be separated into 5 programs
- Digital display of pump pressure
- Integrated web server for browser based operation in local area networks via PC, tablet or smart phone, secure data transfer due to authentication procedure and encryption
- Very small internal volume and big non-thermostated expansion vessel (cold fluid layer system)
- SmartCool system for energy-saving digital cooling management including compressor on-off control
- Condenser cooling Water



Reserve technical changes

LAUDA DR. R. WOBSEY GMBH & CO. KG
Laudaplatz 1 • 97922 Lauda-Königshofen • DE

T + 49 (0) 9343 503-0
info@lauda.de • www.lauda.de
WEEE-Reg-Nr.: DE 66 42 40 57

Kommanditgesellschaft: Sitz Lauda-Königshofen
Registergericht Mannheim • HRA 560069

Persönlich haftende Gesellschafterin:
LAUDA DR. R. WOBSEY Verwaltungs-GmbH
Sitz Lauda-Königshofen
Registergericht Mannheim • HRB 560226

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

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Features

- Utilises traditional refrigerants (HFCs) in accordance with European legislation to control F-gases (EU) 573/2024



Working temperature min.
-80 °C



Working temperature max.
220 °C

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Technical Features (according to DIN 12876)

| | |
|---|---|
| Working temperature range | -80 ... 220 °C |
| Ambient temperature range | 5 ... 40 °C |
| Temperature stability | 0.05 ± K |
| Heater power max. | 4 kW |
| Power consumption max. | 9 kW |
| Current max. | 13.5 A |
| Pump Pressure max. | 3,1 bar |
| Pump flow rate max. (pressure) | 65 L/min |
| In / Outlet connection thread (outside) | M30 x 1,5 |
| Filling volume min. | 4.8 L |
| Filling volume max. | 17.2 L |
| Water cooling connection thread (outside) | 3/4 " |
| Recommended cooling water temperature | 15 °C |
| Cooling water temperature max. | 30 °C |
| Cooling water flow rate | 2.7 L/min |
| Recommended pressure difference cooling water | 3 bar |
| Pressure difference cooling water min. | 0.8 bar |
| Max. pressure difference cooling water | 5 bar |
| Maximal pressure cooling water | 10 bar |
| Overall dimensions (WxDxH) | 560 x 550 x 1325 mm |
| Weight | 195 kg |
| Noise level | 62 dB(A) |
| Refrigerant stage 1 | R-449A (GWP 1397); 0.800 kg; 1.1 t CO ₂ -eq |
| Refrigerant stage 2 | R-23 (GWP 14800); 0.380 kg; 5.6 t CO ₂ -eq |
| Power supply | 400 V; 3/PE; 50 Hz & 460 V; 3/PE; 60 Hz |
| Power plug | Power cord with plug (IEC 60309, 5-pol, CEE, red, 16 A) |

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| Temperature | Pump stage | Heat transfer liquid | Cooling Capacity 50 Hz | Cooling Capacity 60 Hz |
|-------------|------------|----------------------|------------------------|------------------------|
| 200 °C | 8 | Thermal oil | 1.7 kW | 1.7 kW |
| 100 °C | 8 | Thermal oil | 1.7 kW | 1.7 kW |
| 20 °C | 8 | Ethanol | 1.7 kW | 1.7 kW |
| 10 °C | 8 | Ethanol | 1.65 kW | 1.65 kW |
| 0 °C | 8 | Ethanol | 1.6 kW | 1.6 kW |
| -10 °C | 8 | Ethanol | 1.6 kW | 1.6 kW |
| -20 °C | 4 | Ethanol | 1.8 kW | 1.8 kW |
| -30 °C | 4 | Ethanol | 1.8 kW | 1.8 kW |
| -40 °C | 4 | Ethanol | 1.8 kW | 1.8 kW |
| -50 °C | 4 | Ethanol | 1.5 kW | 1.5 kW |
| -60 °C | 4 | Ethanol | 0.9 kW | 0.9 kW |
| -70 °C | 4 | Ethanol | 0.45 kW | 0.45 kW |
| -80 °C | 2 | Ethanol | 0.18 kW | 0.18 kW |

Reserve technical changes

Standard accessories

- 2 nipples 1/2" with screw cap G3/4 for cooling water

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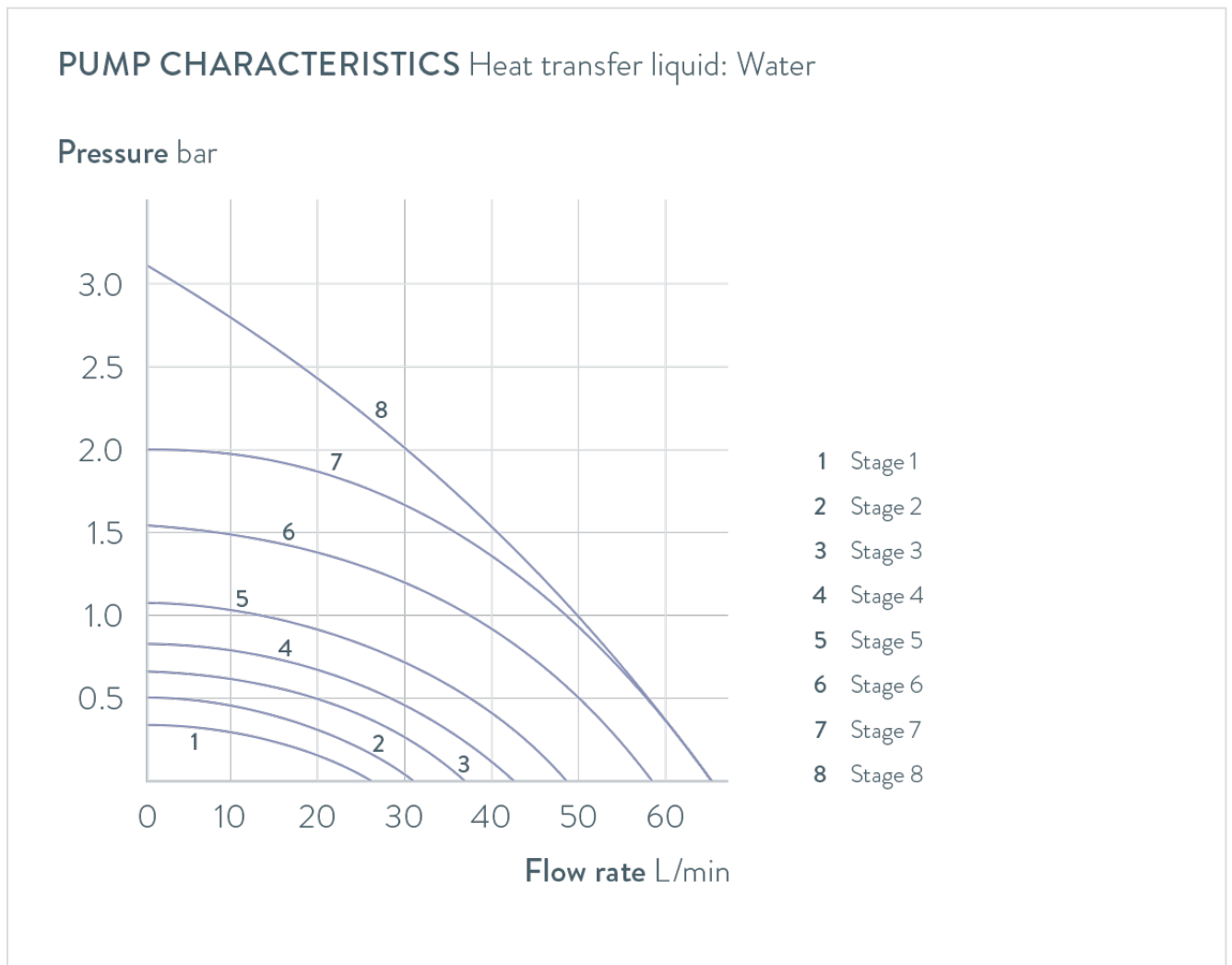
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