

PRODUCT DATA SHEET

Standing: 2021-06-01

LAUDA Kryoheater Selecta KHS 2190 W

Process thermostat 400 V; 3/PE; 50 Hz

Part Number: L001986

Features

- Process thermostat with integrated cooling system for dynamic temperature control within external circuits
- 7" TFT Color Touch Screen with multi-level display functions
- Visual display of active faults, status display of all system components, heating and cooling transfer circuit, graphic display of the flow and return temperature, setpoint temperature and pump pressure.
- User management, temperature input limitation for the safe use with different LAUDA liquids, pump pressure control
- PLC control
- Fully electronic continuous controller with PID action for internal & external control
- Safety components of the heat transfer system: flow switch, safety temperature limiter, minimum level, safety valve
- Safety components of the refrigeration system: oil pressure switch, high pressure switch, high pressure safety limiter, low pressure switch
- Safe use in production environment by IP54 protection and robust steel frame construction
- Powerful, magnetic-coupled pump (high flow volume even with pressure losses), speed controlled or with outlet pressure control
- USB port and lemo plug for external temperature sensor as standard
- Prepared for pressure blanketing with nitrogen
- Internal Temperature probe, Pt100 (3 wire, Class A), can be calibrated at any time (screwed into a welded sleeve)
- Non-flow-through expansion vessel made of stainless steel with electronic liquid level indication and monitoring
- Dual circuit cascade refrigeration system and two stage compressor
- Automatic switching of the second cooling stage
- Condenser cooling Water
- Utilises traditional refrigerants (HFCs) in accordance with European legislation to control F-gases (EU) 517/2014



Reserve technical changes

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Options included

- Beschreibungenglisch With interface (0...10 V oder 4...20mA)



Working temperature min.
-90 °C



Working temperature max.
200 °C

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Technical Features

| | |
|---|--|
| Working temperature range | -90 ... 200 °C |
| Ambient temperature range | 5 ... 40 °C |
| Temperature stability | 0.5 ± K |
| Heater power max. | 18 kW |
| Power consumption max. | 32.8 kW |
| Power consumption | 56.1 A |
| Pump Pressure max. | 5.5 bar |
| Pump flow rate pressure max. | 85 L/min |
| In / Outlet connection thread (outside) | DN 25 |
| Filling volume min. | 15 L |
| Filling volume max. | 55 L |
| Water cooling connection thread (outside) | 1 " |
| Cooling water flow rate | 38 L/min |
| Recommended cooling water temperature | 15 °C |
| Pressure difference cooling water min. | 2.5 bar |
| Maximal pressure cooling water | 10 bar |
| Overall dimensions (WxDxH) | 920 x 1200 x 1700 mm |
| Refrigerant stage 1 | R-449A (GWP 1397); 5.500 kg; 7.7 t CO ₂ -eq |
| Refrigerant stage 2 | R-508B (GWP 13400); 2.400 kg; 32.2 t CO ₂ -eq |
| Power supply | 400 V; 3/PE; 50 Hz |
| Power plug | Power cord with plug (IEC 60309, 5-pol, CEE, red, 63 A) |

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| Temperature | Heat transfer liquid | Cooling Capacity 50 Hz |
|-------------|----------------------|------------------------|
| 200 °C | Thermal oil | 21 kW |
| 20 °C | Thermal oil | 21 kW |
| 10 °C | Thermal oil | 20 kW |
| 0 °C | Thermal oil | 18 kW |
| -10 °C | Thermal oil | 15 kW |
| -20 °C | Thermal oil | 11 kW |
| -30 °C | Thermal oil | 10.5 kW |
| -40 °C | Thermal oil | 10 kW |
| -50 °C | Thermal oil | 9.5 kW |
| -60 °C | Thermal oil | 9 kW |
| -70 °C | Thermal oil | 6.3 kW |
| -80 °C | Thermal oil | 3.5 kW |
| -90 °C | Thermal oil | 1 kW |

Reserve technical changes