

FL4003 Powerful model in tower version

The FL models shown here have higher cooling capacity, powerful circulating pumps, and internal bath volumes of up to 30 liters. 2 variants: Air-cooled (FL) and water-cooled (FLW).



Your advantages

- Ergonomic design and easy operation
- Splash-proof keypad
- Large, bright LED display
- Reliable Microprocessor PID temperature control
- Precise PID temperature control
- Powerful immersion pumps, suitable for continuous operation
- Permissible temperature in return line +80°C
- Easy filling from the top with hinged protective lid
- Low liquid level protection with optical and audible alarm signal
- Integrated stainless steel bath tanks
- Removable ventilation grid
- Front drain
- No side vents, instruments can be placed right next to other equipment
- RS232 interface for PC connection
- IP class according to IEC 60529: 21
- Alarm output, potential-free change-over contact (max. 30 VA)
- Pressure Indicator
- By-pass valve to adjust pump pressure

Technical data

| | | | |
|--|--------------------------------|--------------------------------|------------------------|
| Available voltage versions | | Bath | |
| Order No. | 9 663 040 | Bath tank | Stainless steel |
| Available voltage versions: | | | |
| 9 663 040.16 | 230V/3PPE/60Hz (Without Plug) | | |
| 9 663 040.07 | 400V/3PNPE/50Hz (Plug 16A CEE) | | |
| Cooling | | Other | |
| Cooling of compressor | 1-stage Air | Sound pressure level dbA | 67 |
| | | Classification | Classification I (NFL) |
| | | IP Code | IP 21 |
| | | Pump type | Immersion Pump |
| Electronics | | Dimensions and volumes | |
| Temperature control | PID1 | Weight kg | 148 |
| Temperature display | LED | Barbed fittings inner diameter | ¾" |
| Temperature setting | Keypad | Dimensions cm (W × L × H) | 60 x 76 x 115 |
| | | Filling volume l | 24 ... 30 |
| | | Pump connections | G¾" male |
| Temperature values | | | |
| Setting the resolution of the temperature display °C | 0.1 | | |
| Return flow temperature max. °C | 80 | | |
| Working temperature range °C | -20 ... +40 | | |
| Temperature stability °C | ±0.5 | | |
| Ambient temperature °C | 5 ... 40 | | |

| | |
|-----------------------------------|-----|
| Temperature display resolution °C | 0.1 |
|-----------------------------------|-----|

Performance values

230V/3PPE/60Hz (Without Plug)

| 230V/3PPE/60Hz | | | | | |
|------------------------------------|-----------|-----|-----|-----|-----|
| Cooling capacity (Water Glycol) | | | | | |
| °C | 20 | 10 | 0 | -10 | -20 |
| kW | 4 | 3.4 | 2.4 | 1.5 | 0.6 |
| Refrigerant | R449A | | | | |
| Filling volume g | 1800 | | | | |
| Global Warming Potential for R449A | 1397 | | | | |
| Carbon dioxide equivalent t | 2.515 | | | | |
| Pump capacity flow rate l/min | 40 | | | | |
| Pump capacity flow pressure bar | 0.5 ... 3 | | | | |

400V/3PNPE/50Hz (Plug 16A CEE)

| 400V/3PNPE/50Hz | | | | | |
|------------------------------------|-----------|-----|-----|-----|------|
| Cooling capacity (Water Glycol) | | | | | |
| °C | 20 | 10 | 0 | -10 | -20 |
| kW | 4 | 3.4 | 2.4 | 1.5 | 0.65 |
| Refrigerant | R452A | | | | |
| Filling volume g | 2220 | | | | |
| Global Warming Potential for R452A | 2140 | | | | |
| Carbon dioxide equivalent t | 4.751 | | | | |
| Pump capacity flow rate l/min | 40 | | | | |
| Pump capacity flow pressure bar | 0.5 ... 3 | | | | |

All Benefits



100% Checked.
100% testing. 100% quality. Each JULABO Circulator undergoes thorough quality testing before leaving the factory.



Green technology.
Development consistently applied environmentally friendly materials and technologies.



JULABO. Quality.
Highest standards of quality for a long product life.



Quick start.
Individual JULABO consultation and comprehensive manuals at your disposal.



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11 subsidiaries and more than 100 partners worldwide guarantee fast and qualified JULABO support.



Services 24/7.
Around the clock availability. You can find suitable accessories, data sheets, manuals, case studies, and more at www.julabo.com.



Precise

PID Temperature control with set control parameters, temperature stability $\pm 0.02 \dots \pm 0.2$ °C