



HT30-M1-CU High Temperature Circulator

2-zone technique for working temperatures up to 400 °C

JULABO high temperature circulators: The response to present requirements in the market. Peak performance, rapid heating and cooling, fast action in case of exotherm reactions - these are only few of the features of our high temperature circulators. The self-optimizing controller (ICC -Intelligent Cascade Control) ensures high temperature stability. The classic PID control parameters are available at the touch of a button for modification at any time. MULTI-DISPLAY (LED) and interactive LCD display offer convenient operation. The implemented heating automation, strong pump and controlled cooling produce rapid and precise results for temperature applications to +4 00 °C. The instruments are completely sealed. This prevents the release of oil fumes and results in long life time of the heat transfer liquid. Automatic air-purge allows easy filling. Electrical connections and the optional Profibus permit future-oriented automation technology. JULABO high temperature circulators are recommended for applications using jacketed reactors and autoclaves, distillation columns as well as laboratory, miniplant and process-scale applications.



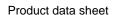


Your advantages

- Working temperature range up to 400 °C
- · Self-optimizing ICC temperature controller
- Strong pumping capacity 18 l/min 1.2 bar max
- · Automatic air-purge allows easy filling
- Automated heat-up feature adjusts to external systems
- Bright MULTI-DISPLAY (LED) with display resolution 0.01 °C
- Backlit interactive 4-line LCD display
- On-line communication via built-in RS232 interface
- · Stand-by input for external emergency switch-off
- Integrated programmer stores up to 6 profiles (60 sections each)
- Electronic level indication
- ATC function for simple correction of temperature variations
- ATC function allows use as testing instrument according to ISO 9000
- Tap water cooling for temperatures from 40 to 400 °C and rapid cooling
- Cooling capacity up to 15 kW (with tap water 20°C)

Technical Data

Order No.	9800035
Category	High Temperature Circulators Forte HT
Working temperature range (°C)	+40 +400
Temperature stability (°C)	±0.01-0.1
Setting / display resolution	0.01 °C
Integrated programmer	6x60 steps
Temperature Display	LCD, LED
Heating capacity (kW)	3
Pump capacity flow rate (I/min)	14-18





Pump capacity flow pressure (psi)	11.6-17.4
Pump connections	M16x1
Filling volume liters	2
External Pt100 sensor connection	integrated
Digital interface	RS232, RS485 Optional: Profibus
Ambient temperature	540 °C
Dimensions W x L x H (inch)	Thermostat: 9.8 x 9.8 x 7.1
Weight (LBS)	77
Weight (LBS) Classification according to DIN12876-1	77 Classification III (FL)
Classification according to DIN12876-1	Classification III (FL)
Classification according to DIN12876-1 Display for pump pressure and filling volume	Classification III (FL) Backlit indicator
Classification according to DIN12876-1 Display for pump pressure and filling volume Filling volume expansion vessel liters	Classification III (FL) Backlit indicator 1.6+0.9
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Characteristics

Display



Easy to read

Large LED temperature display for actual value and setpoint (resolution 0.1 °C)



Additional plain text information

Comfortable LCD dialog display for interactive operation with plain text display



👧 🗂 Pump stage and liquid level

Backlit indicator for selected pump stages and filling volume on Presto® PLUS, Magnum 91 & Forte HT

Operation



Clearly structured

Comfortable, splash-proof keypad for setpoint adjustment, high/low temperatures, timer and shaking frequeny (SW models)

Temperature Control



ICC For perfect results

'Intelligent Cascade Control', automatic & self optimizing adjustment of PID control parameters, temperature stability ±0.005 °C internal, <±0.05 °C external



TCF Full control

'Temperature Control Features' for individual optimization, access to all important control parameters, additional settings for band limit, limits, Co-Speedfactor etc.



High measuring accuracy

'Absolute Temperature Calibration' for manual compensation of a temperature difference, 1-point calibration

Technical Features



Pt 1000 Control from the external application

External Pt100 sensor connection for precise measurement and control directly in the external application



Connection compliant to standard RS232/RS485 dual-interface for

serial data transmission according to EIA-485 industry standard (2-wire bus technology), upgradable with Profibus DP



Optimal program control

For the execution of time and temperature dependant profiles, 6 temperature profiles with 60 steps max., with real time clock

Warning & Safety Functions



Early warning system for high/low temperature limits

Maximum safety for applications, optical and audible alarm, convertible to automated cut-off function



Enhanced protective functions

Maximum safety, adjustable high temperature cut-off or dry-running protection, additional display of setpoints permits easy and precise adjustments



For flammable bath fluids

Classification III (FL) according to DIN 12876-1