

# **CF40 Cryo-Compact Circulator**

## The first choice for routine and straightforward laboratory applications from -40°C to 150°C

Cryo-Compact Circulator for internal and external temperature applications The CF series offers compact refrigerated/heating circulators. With small overall dimensions the units can even be placed on a very small surface or within a complex installation. All models offer a heating capacity of 2 kW and classification 3 according to DIN12876-1. The maximum ambient temperature of +40°C as well as a ventilation air cooling allow installing the units very closely side by side with other units or directly under a fume hood. Furthermore all the models feature pump connections for external temperature applications and a bath opening for temperature control of small objects directly in the circulator bath. Wetted parts are made of high quality stainless steel or plastic. The instruments provide a reliable Microprocessor electronics with high temperature stability as well as warning and safety functions.

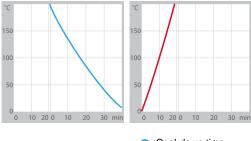
## Your advantages

- Ergonomic design and easy operation
- · Small overall dimensions for lowest space requirement
- · Splash-proof keypad
- · Large, bright LED temperature display
- · Precise PID temperature control
- RS232 interface for PC connection
- · Adjustable high temperature cut-off
- Classification 3 according to DIN12876-1
- · Pump connections for external temperature applications
- Bath opening for temperature control of small objects in the bath
- Front drain

#### **Technical Data**

Order No.	9400340
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Model series	Economy
Category	Cryo-Compact Circulators
Working temperature range (°C)	-40 +150
Temperature stability (°C)	±0.03
Setting / display resolution	0.1 °C
Temperature Display	LED
Heating capacity (kW)	2
Cooling capacity (Medium Ethanol)	°C 20 0 -20 -30 kW 0.47 0.4 0.28 0.12
Pump capacity flow rate (I/min)	15
Pump capacity flow pressure (bar)	0.35
Bath opening / bath depth (W x L / D cm)	19 x 3 / 19
Pump connections	M16x1
Barbed fittings diameter (inner dia. / mm)	8 / 12





Cool-down time (Ethanol)

Heat-up time (Thermal)



Filling volume liters	5.5
Refrigerant	R404A
Digital interface	RS232, Optional Profibus
Ambient temperature	540 °C
Dimensions W x L x H (cm)	28 x 46 x 46
Weight (kg)	41
Classification according to DIN12876-1	Classification III (FL)according to DIN 12876-1
Included with each unit	2 each barbed fittings for tubing 8 and 12 mm inner dia. (pump connections M16x1 female).
Cooling of compressor	Air
Available voltage versions	230 V / 50 Hz 230 V / 60 Hz 115 V / 60 Hz

#### Characteristics

## Display



# Easy to read

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

## Operation



## Time saving

Comfortable and simple operation for setpoint adjustment

## **Temperature Control**



PID Temperature control with set control parameters, temperature stability ±0.02...±0.2 °C

#### **Technical Features**



## RS232 Serial connection

RS232 interface for PC connection, e.g. for data communication and recording of measured values

## Warning & Safety Functions



## **Protective functions**

Adjustable high temperature cut-off or dry-running protection



## For flammable bath fluids

Classification III (FL) according to DIN 12876-1

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