Product data sheet

CORIO CD-650F Refrigerated / heating circulator

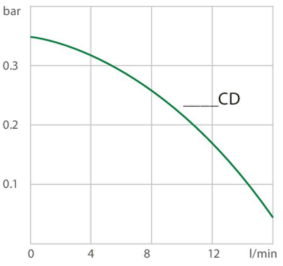
The new generation of laboratory circulators for routine work and standard tasks

Refrigerated / heating circulators of the CORIO CD series distinguish themselves with a great price-to-performance ratio. Durable and dependable, they are suitable for a wide range of standard and routine work in both laboratories and industrial environments.

The CORIO CD-650F refrigerated circulator, with a working temperature range of -40 ... 150 °C, delivers a powerful cooling capacity of 0.68 kW at 20 °C despite its very compact design. The cooling machine operates with a natural, environmentally friendly refrigerant. Thanks to the optimized refrigerant cycle, the machine requires only 65 g of refrigerant. This allows for flexible use at the site and shipment via air freight.



Pump capacity



Medium: Water

Product Features

- Models for internal and external applications
- Bright, white, easy to read display
- Very quiet
- easy switching between internal and external circulation
- Bath lid and drain tap included
- removable ventilation grid
- Refrigeration unit without side vents
- NRTL certification for the U.S. and Canada: Available upon request

Performance values

230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F)	
Heating capacity kW	2
Viscosity max. cSt	50
Pump capacity flow rate l/min	15
Pump capacity pressure bar	0.35
Voltage Tolerance %	230V | -10 / +5

Order number including voltage version (230V/50Hz)	9012730.N1.03

Cooling capacity (Ethanol)

°C	20	0	-20	-30
kW [1]	0.68	0.55	0.27	0.12

Note about natural refrigerants:
Temperature control units using natural refrigerants are often subject to regulatory requirements regarding the installation site, operation, transport or disposal of the units. If you have any questions, we will be happy to advise you.

Refrigerant stage 1	
Refrigerant	R290
Filling weight g	65
Global Warming Potential for R290	3
Carbon dioxide equivalent t	0.000195

[1] Performance specifications measured in accordance with DIN 12876. Cooling capacities up to 20 °C measured with ethanol; over 20 °C with thermal oil unless otherwise specified. Performance specifications apply at an ambient temperature of 20 °C. Performance values may differ with other bath fluids.

Technical data

Available voltage versions	
Order No.	9012730
9012730.N1.02	115V 60Hz (Nema N5-15 Plug) (R290)
9012730.N1.03	230V 50Hz (Schuko Plug - CEE 7/4 Plug Type F) (R290)
9012730.N1.03.chn	230V 50Hz (CN Plug) (R290)
9012730.N1.04	230V 50Hz (UK Plug Type BS1363A) (R290)
9012730.N1.05	230V 50Hz (CH Plug Type T12 / 10A) (R290)
9012730.N1.13	230V 60Hz (Nema N6-20 Plug) (R290)

Cooling	
Cooling of compressor	1-stage Air

Bath	
Bath tank	Stainless steel
Bath cover	integrated
Usable bath opening cm (W x L / D)	18 x 13 / 15

Electronics

Interfaces	USB
Temperature control	PID1
Absolute temperature calibration	1 Point Calibration
Temperature display	LED
Temperature setting	Keypad

Dimensions and volumes

Weight kg	36
Barbed fittings inner diameter mm	8/12 mm
Total dimensions cm (W × L × H)	33 x 47 x 70
Filling volume l	5 ... 7.5
Pump connections	M16x1 male

Temperature values

Working temperature range °C	-40 ... 150
Temperature stability °C	±0.03
Ambient temperature °C	+5 ... +40
Temperature display resolution °C	0.01

Other

Classification	Classification III (FL)
IP Code	IP 21
Pump function	Pressure Pump
Pump type	Immersion Pump

Included in delivery

2 Barbed fittings for tubing 8 and 12 mm ID. (Pump connections M16x1 male)

All Benefits



Brilliant.

Very bright display makes it easy to read even from a distance.



Timer. Integrated.

CORIO circulators include an integrated timer function. When the set time has elapsed, a signal sounds and the device switches off. Setting range: 0 ... 999 minutes.



Connection. Easy.

Inclined pump connections (M16×1) facilitate the connection of applications. Each unit includes 2 barbed fittings of 8/12 mm diameter each.



Everything at the front.

All operating controls and safety functions are accessed easily and comfortably from the front.



Exact.

You can rely on it. PID1 control and 'Active Cooling Control' make the new CORIO precise and perfect.



Locked in.

The lockable power plug guarantees safe connection. More process safety.



Switch on. And off you go.

Intelligent operating concept. Ready for operation with just a few quick and easy steps.



Early warning system for low liquid level

Maximum safety for applications, optical and audible alarm, allows user to refill bath fluid before the unit shuts down



Connectivity.

Remote control made easy. CORIO CD circulators feature a USB connection.

Refer to www.julabo.com for more information regarding the entire JULABO product portfolio. Technical changes without prior notification. Images may deviate from the original. | Datasheet No.EN9012730/261105