

Julabo Refrigerated/Heating Circulators



F12-MC



F25-MC



FP35-MC

TopTech - MC Series

for working temperatures from -50 °C to +200 °C

Refrigerated/heating circulators of the *TopTech* Series feature are designed for more demanding applications. The feature increased functionality and additional warning and safety functions.

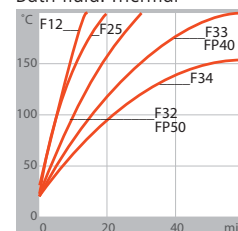
Models with MC circulator

- PID2 temperature control, stability ± 0.02 °C
- Electronically adjustable pump capacity
- RS232 interface
- 3-point calibration
- Early warning system for low liquid level and high/low temperature

The FP35-MC model is designed for external temperature control applications requiring fast temperature changes due to its small bath volume.

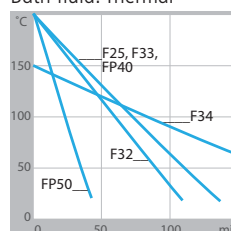
Heat-up times

Bath fluid: Thermal



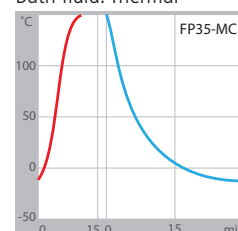
Cool-down times

Bath fluid: Thermal



Heat-up/cool-down time

Bath fluid: Thermal



JULABO Order No.	JULABO Model	Working temperature range °C	Temp. stab. °C	Heat. cap. kW	Cooling capacity kW (Bath fluid: Ethanol)					Pump capacity Flow rate/Pressure		Bath opening/ Bath depth		Fill. vol. liters	Dimensions W x L x H cm
					+20	0	-20	-30	-40 °C	l/min.	bar	W x L / D cm			
9 152 612	F12-MC	-20 ... +200	± 0.02	2	0.16	0.1	0.02	--	--	11-16	0.23-0.45	13 x 15 / 13		4.5	20 x 36 x 56
9 152 625	F25-MC	-28 ... +200	± 0.02	2	0.26	0.2	0.06	--	--	11-16	0.23-0.45	12 x 14 / 14		4.5	23 x 42 x 61
9 152 632	F32-MC	-35 ... +200	± 0.02	2	0.45	0.39	0.15	0.05	--	11-16	0.23-0.45	18 x 12 / 15		8	31 x 42 x 64
9 152 633	F33-MC	-30 ... +200	± 0.02	2	0.5	0.32	0.12	0.03	--	11-16	0.23-0.45	23 x 14 / 20		16	36 x 46 x 69
9 152 634	F34-MC	-30 ... +150	± 0.02	2	0.45	0.32	0.14	0.03	--	11-16	0.23-0.45	24 x 30 / 15		20	38 x 58 x 62
9 152 618	FP35-MC	-35 ... +150	± 0.02	2	0.45	0.39	0.15	0.05	--	11-16	0.23-0.45	18 x 12 / --		2.5	31 x 42 x 64
9 152 640	FP40-MC	-40 ... +200	± 0.02	2	0.68	0.5	0.32	0.17	0.04	11-16	0.23-0.45	23 x 14 / 20		16	37 x 46 x 69
9 152 650	FP50-MC	-50 ... +200	± 0.02	2	0.9	0.8	0.5	0.32	0.16	11-16	0.23-0.45	18 x 12 / 15		8	42 x 49 x 70

Included with each unit: 2 each barbed fittings for tubing 8 and 10 mm inner dia. (pump connections M10x1 female)



| F26-ME

| F32-ME

| FP50-ME

TopTech - ME Series

for working temperatures from -50 °C to +200 °C

Models with ME circulators and their additional features allow for a wide range of applications. The units have a connection for an external Pt100 sensor for direct measuring and control in an external application. The VFD display features easy operation and shows all temperature values on one display.

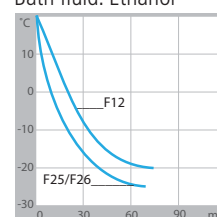
Additional benefits of models with ME circulators

- PID3 temperature control, stability ± 0.01 °C
- VFD Comfort Display with simultaneous indication of setpoint and internal and external actual value (resolution 0.01 °C)
- Integrated programmer (1 x 10 steps) with real-time clock
- Illuminated display for adjustable pump capacity
- RS232 interface

FP models: energy-saving proportional cooling control

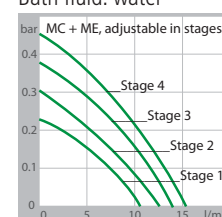
Cool-down times

Bath fluid: Ethanol



Pump capacity

Bath fluid: water



JULABO Order No.	JULABO Model	Working temperature range °C	Temp. stab. °C	Heat. cap. kW	Cooling capacity kW (Bath fluid: Ethanol)					Pump capacity Flow rate/Pressure		Bath opening/ Bath depth W x L / D cm	Fill. vol. liters	Dimensions W x L x H cm
					+20	0	-20	-30	-40°C	l/min.	bar			
9 162 625	F25-ME	-28 ... +200	± 0.01	2	0.26	0.2	0.06	--	--	11-16	0.23-0.45	12 x 14 / 14	4.5	23 x 42 x 61
9 162 626	F26-ME	-28 ... +200	± 0.01	2	0.26	0.2	0.06	--	--	11-16	0.23-0.45	12 x 14 / 14	4.5	42 x 42 x 42
9 162 632	F32-ME	-35 ... +200	± 0.01	2	0.45	0.39	0.15	0.05	--	11-16	0.23-0.45	18 x 12 / 15	8	31 x 42 x 64
9 162 633	F33-ME	-30 ... +200	± 0.01	2	0.5	0.32	0.12	0.03	--	11-16	0.23-0.45	23 x 14 / 20	16	36 x 46 x 69
9 162 634	F34-ME	-30 ... +150	± 0.01	2	0.45	0.32	0.14	0.03	--	11-16	0.23-0.45	24 x 30 / 15	20	38 x 58 x 62
9 162 640	FP40-ME	-40 ... +200	± 0.01	2	0.68	0.5	0.32	0.17	0.04	11-16	0.23-0.45	23 x 14 / 20	16	37 x 46 x 69
9 162 650	FP50-ME	-50 ... +200	± 0.01	2	0.9	0.8	0.5	0.32	0.16	11-16	0.23-0.45	18 x 12 / 15	8	42 x 49 x 70

Included with each unit: 2 each barbed fittings for tubing 8 and 10 mm inner dia. (pump connections M10x1 female)