

Economy

TopTech

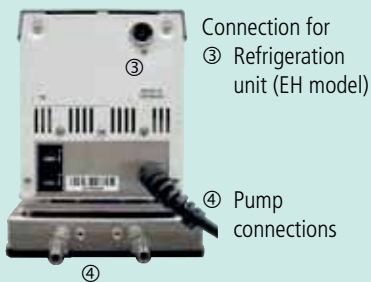


ED/EH Models
-35 °C ... +150 °C

Basic models for routine and standard applications

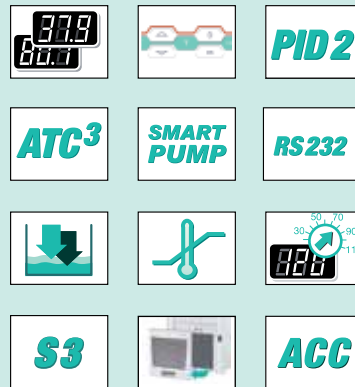


EH Models (in addition)

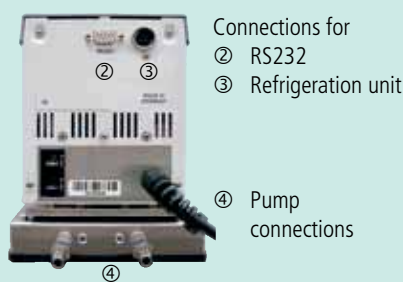


MA Models
-50 °C ... +200 °C

Middle class for a broad range of applications

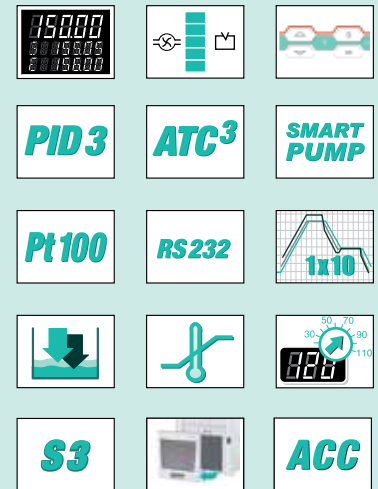


FP Models (in addition)

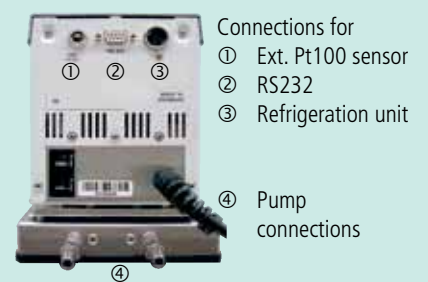


ME Models
-90 °C ... +200 °C

Upper middle class with external Pt100 sensor connection



FP Models (in addition)



FP35-MA for external applications with rapid temperature changes



F12-MA



F25-MA



FP35-MA

TopTech Series

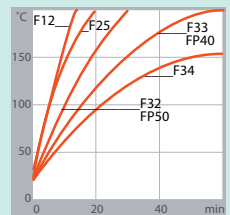
for working temperatures from -50 °C to +200 °C

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

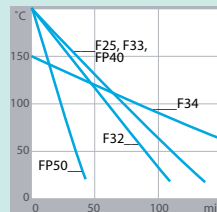
Models with MA circulators

- PID2 temperature control, stability ± 0.02 °C
- ATC 3-point calibration
- RS232 interface
- Early warning system for low liquid level and high/low temperature
- Pump capacity electronically adjustable
- Protection class III according to DIN 12876-1

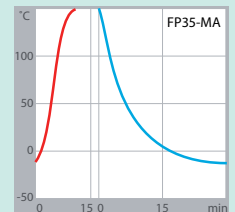
Heat-up time
Bath fluid: Thermal



Cool-down time
Bath fluid: Thermal



Heat-up/cool-down time
Bath fluid: Thermal



JULABO Order No.	JULABO Model	Working temp. range °C	Temp. stab. °C	Heat. cap. kW	Cooling capacity kW (Bath fluid: Ethanol)					Pump capacity Flow rate/Pressure l/min. bar	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					
9 153 612	F12-MA	-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
9 153 625	F25-MA	-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
9 153 625N	FN25-MA	-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 50 x 61
9 153 632	F32-MA	-35 ... +200	± 0.02	2	0.45	0.39	0.15	0.06	--	11-16	0.23-0.45	18 x 12 / 15	8	31 x 42 x 64
9 153 632N	FN32-MA	-35 ... +200	± 0.02	2	0.45	0.39	0.15	0.06	--	11-16	0.23-0.45	18 x 12 / 15	8	31 x 50 x 64
9 153 633	F33-MA	-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
9 153 634	F34-MA	-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
9 153 618	FP35-MA	-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
9 153 640	FP40-MA	-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
9 153 650	FP50-MA	-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
water-cooled model														
9 153 651	FPW50-MA	-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

FN32-ME

FP50-ME

TopTech Series

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

Models with ME circulators 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 Comfort display features easy operation and shows all temperature values on one display.

Additional advantages 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

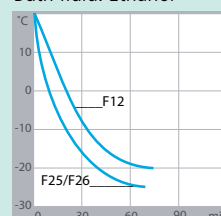
Note: FP models feature an energy-saving proportional cooling control.



More information on circulators with natural refrigerants on page 22

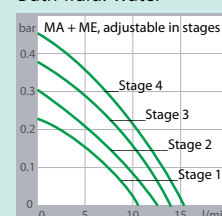
Cool-down time

Bath fluid: Ethanol



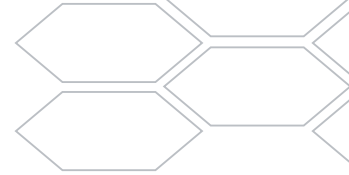
Pump capacity

Bath fluid: water



JULABO Order No.	JULABO Model	Working temp. range °C	Temp. stab. °C	Heat. cap. kW	Cooling capacity kW (Bath fluid: Ethanol)					Pump capacity		Bath opening/ Bath depth	Fill. vol. liters	Dimensions W x L x H cm
					+20	0	-20	-30	-40 °C	Flow rate/Pressure	bar	W x L / D cm		
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 625N	FN25-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 50 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	0.06	--	11-16	0.23-0.45	18 x 12 / 15	8	31 x 42 x 64
9 162 632N	FN32-ME	-35 ... +200	± 0.01	2	0.45	0.39	0.15	0.06	--	11-16	0.23-0.45	18 x 12 / 15	8	31 x 50 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
water-cooled model														
9 162 651	FPW50-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)



Economy

TopTech



ED/EH Models
+20 °C ... +150 °C

Basic models for routine and standard applications



EH Models (in addition)



③ Connection for Solenoid valve (EH Model)

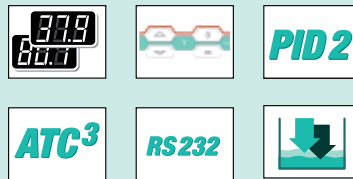
④ Connections for pump and cooling coil

④



MB/MA Models
+20 °C ... +200 °C

Middle class for a broad range of applications



MB Models (in addition)



MA Models (in addition)



② Connections for RS232
③ Solenoid valve

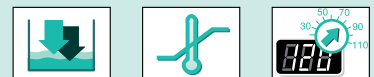
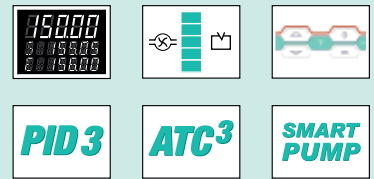
④ Connections for pump and cooling coil

④



ME Models
+20 °C ... +200 °C

Upper middle class with ext. Pt100 sensor connection



① Ext. Pt100 sensor
② RS232
③ Solenoid valve

④ Connections for pump and cooling coil

④



Heating Immersion Circulators

with attachment clamp for any bath tank up to 50 liters filling volume

Heating immersion circulators have always been a staple at JULABO. All circulators include a bath attachment clamp allowing for quick and easy mounting to a bath tank up to 50 liters.

Immersion circulators

- Working temperature range up to +200 °C
- Bath attachment clamp for a wall thickness up to 26 mm
- Immersion depth 16.5 cm, reducible to 14.5 cm
- All wetted parts made of stainless steel or high grade plastic
- Pump set for external control application and cooling coil for applications below ambient temperature available as accessories
- Model MB for whisper-quiet operation

Note: Model ME with connection for external Pt100 sensor and integrated programmer

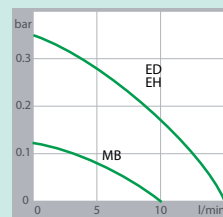
Bath attachment clamp
for any bath tank (included)



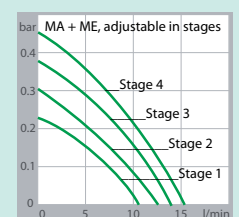
Pump set for external applications (accessory)



Pump capacity
Bath fluid: water

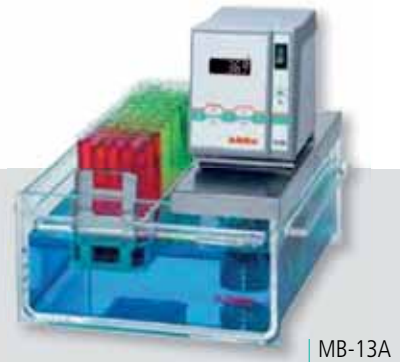


Pump capacity
Bath fluid: water



JULABO Order No.	JULABO Model	Working temperature range °C ¹⁾	Temp. stability °C	Heating capacity kW	Pump capacity Flow rate l/min	Pressure bar	Cooling coil	Usable immersion depth cm	Dimensions W x L x H cm
9 116 000	ED	+20 ... +100	±0.03	2	15	0.35	Option	8-14.5	13 x 15 x 33
9 118 000	EH	+20 ... +150	±0.03	2	15	0.35	Option	8-14.5	13 x 15 x 33
9 142 000	MB	+20 ... +100	±0.02	2	10	0.12	Option	8-14.5	13 x 15 x 33
9 153 000	MA	+20 ... +200	±0.01	2	11-16	0.23-0.45	Option	8-14.5	13 x 15 x 33
9 162 000	ME	+20 ... +200	±0.01	2	11-16	0.23-0.45	Option	8-14.5	13 x 15 x 33

¹⁾ For applications near or below ambient temperature: use a cooling coil or JULABO immersion cooler.



Open Heating Bath Circulators – internal

for internal temperature applications with transparent bath tanks

Open heating bath circulators are designed for internal applications in the circulator bath. The models on this page are equipped with bath tanks made of Plexiglas® or Makrolon®. Available accessories include a variety of test tube racks, immersion-height adjustable platforms and cooling coils. The circulator can be removed for easy cleaning of the bath tanks.

Open heating bath circulators

- Bath tanks made of transparent Plexiglas® or Makrolon®
- Models with a filling volume of 5 to 19 liters
- Bath tanks of 13 and 19 liters with handles

Affix ‚A‘ Plexiglas®, to +60 °C

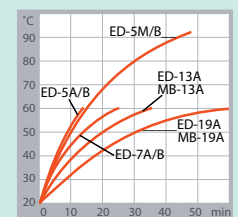
Affix ‚M‘ Makrolon®, to +100 °C

Test tube insert capacity

Model	No. of test tubes with 13 mm Ø	17 mm Ø
ED-5A/B, ED-5M/B	90	40
ED-7A/B	90	60
ED-13A, ED-13M, MB-13A	90	60
ED-19A, ED-19M, MB-19A	270	180

Heat-up time

Bath fluid: water



JULABO Order No.	JULABO Model	Working temperature range °C ¹⁾	Temp. stab. °C	Heat. cap. kW	Pump capacity Flow rate l/min	Pressure bar	Cooling coil	Bath opening/ Bath depth W x L / D cm	Bath tanks	Filling vol. liters	Dimensions W x L x H cm
9 116 315	ED-5A/B	+20 ... +60	±0.03	2	15	0.35	--	12 x 24 / 15	Plexiglas®	5	14 x 40 x 35
9 116 317	ED-7A/B	+20 ... +60	±0.03	2	15	0.35	--	12 x 34 / 15	Plexiglas®	7	14 x 50 x 35
9 116 515	ED-5M/B	+20 ... +100	±0.03	2	15	0.35	--	12 x 24 / 15	Makrolon®	5	14 x 40 x 35
9 116 313	ED-13A	+20 ... +60	±0.03	2	15	0.35	Option	18 x 30 / 15	Plexiglas®	13	41 x 33 x 36
9 116 319	ED-19A	+20 ... +60	±0.03	2	15	0.35	Option	36 x 30 / 15	Plexiglas®	19	55 x 33 x 36
9 116 513	ED-13M	+20 ... +100	±0.03	2	15	0.35	Option	18 x 30 / 15	Makrolon®	13	41 x 33 x 37
9 116 519	ED-19M	+20 ... +100	±0.03	2	15	0.35	Option	36 x 30 / 15	Makrolon®	19	55 x 33 x 37
9 142 313	MB-13A	+20 ... +60	±0.02	2	10	0.12	Option	18 x 30 / 15	Plexiglas®	13	41 x 33 x 36
9 142 319	MB-19A	+20 ... +60	±0.02	2	10	0.12	Option	36 x 30 / 15	Plexiglas®	19	55 x 33 x 36

¹⁾ For applications near or below ambient temperature: use a cooling coil or JULABO immersion cooler.



Test tube racks not included in delivery (accessory).

Heating Circulators with Open Bath internal and external

for internal and external temperature applications up to +100 °C with transparent bath tanks and pump connections

Heating circulators with open baths are designed for temperature applications in the circulator bath and are equipped with pump connections for external temperature applications. The models on this page feature bath tanks made of transparent Plexiglas® or Makrolon®.

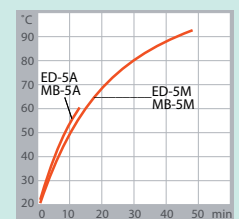
Heating circulators with open bath

- Additional pump connections for external applications
- Integrated cooling coil
- Bath tanks made of Plexiglas® or Makrolon®
- Models with filling volumes of 5 and 7 liters

Affix ,A' Plexiglas®, to +60 °C

Affix ,M' Makrolon®, to +100 °C

Heat-up time
Bath fluid: water



JULABO Order No.	JULABO Model	Working temperature range °C ¹⁾	Temp. stab. °C	Heat. cap. kW	Pump capacity Flow rate l/min	Pressure bar	Cooling coil	Bath opening/ Bath depth W x L / D cm	Bath cover	Filling vol. liters	Dimensions W x L x H cm
9 116 305	ED-5A	+20 ... +60	±0.03	2	15	0.35	Integrated	12 x 24 / 15	--	5	14 x 40 x 35
9 116 505	ED-5M	+20 ... +100	±0.03	2	15	0.35	Integrated	12 x 24 / 15	--	5	14 x 40 x 35
9 142 305	MB-5A	+20 ... +60	±0.02	2	10	0.12	Integrated	12 x 24 / 15	--	5	14 x 40 x 35
9 142 307	MB-7A	+20 ... +60	±0.02	2	10	0.12	Integrated	12 x 34 / 15	--	7	14 x 50 x 35
9 142 505	MB-5M	+20 ... +100	±0.02	2	10	0.12	Integrated	12 x 24 / 15	--	5	14 x 40 x 35

¹⁾ For applications near or below ambient temperature: use a cooling coil or JULABO immersion cooler
Included with each unit: 2 each barbed fittings for tubing 8 and 10 mm inner dia. (pump connections M10x1 female)



MA-4



ME-26
with integrated immersion-height adjustable platform

Heating Circulators – external and internal

for external and internal temperature applications up to +200 °C
with stainless steel bath tanks and pump connections

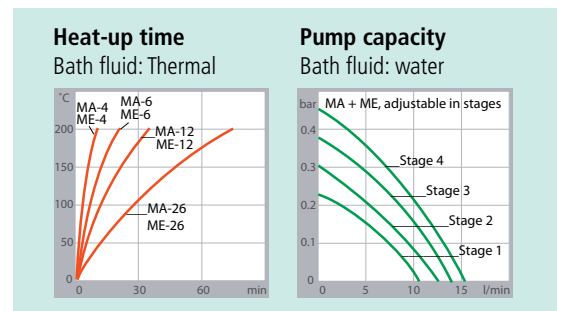
Heating circulators are used primarily for the external temperature control of externally closed systems. Temperature control applications in the internal circulator bath are also possible.

TopTech heating circulators

- For external temperature applications
- Simultaneously, internal temperature applications
- Electronically adjustable pressure pump
- Early warning system for low liquid level and high/low temperature
- RS232 interface
- Integrated cooling coil

Models with ME circulator also feature

- Connection for external Pt100 sensor
- Integrated programmer (1 x 10 steps) with real time clock



JULABO Order No.	JULABO Model	Working temperature range °C ¹⁾	Temp. stability °C	Heat. cap. kW	Pump capacity Flow rate l/min	Pressure bar	Cooling coil	Bath opening/ Bath depth W x L / D cm	Filling volume liters	Dimensions W x L x H cm
9 153 504	MA-4	+20 ... +200	±0.01	2	11-16	0.23-0.45	Integrated	13 x 15 / 15	4.5	21 x 42 x 38
9 153 506	MA-6	+20 ... +200	±0.01	2	11-16	0.23-0.45	Integrated	13 x 15 / 20	6	21 x 43 x 42
9 153 512	MA-12	+20 ... +200	±0.01	2	11-16	0.23-0.45	Integrated	22 x 15 / 20	12	30 x 43 x 45
9 153 526	MA-26	+20 ... +200	±0.01	2	11-16	0.23-0.45	Integrated	22 x 30 / 20	26	36 x 61 x 45
9 162 504	ME-4	+20 ... +200	±0.01	2	11-16	0.23-0.45	Integrated	13 x 15 / 15	4.5	21 x 42 x 38
9 162 506	ME-6	+20 ... +200	±0.01	2	11-16	0.23-0.45	Integrated	13 x 15 / 20	6	21 x 43 x 42
9 162 512	ME-12	+20 ... +200	±0.01	2	11-16	0.23-0.45	Integrated	22 x 15 / 20	12	30 x 43 x 45
9 162 526	ME-26	+20 ... +200	±0.01	2	11-16	0.23-0.45	Integrated	22 x 30 / 20	26	36 x 61 x 45

¹⁾ For applications near or below ambient temperature: use a cooling coil or JULABO immersion cooler
Included with each unit: 2 each barbed fittings for tubing 8 and 10 mm inner dia. (pump connections M10x1 female)