



Refrigerated and Heating Circulators

Cooling and Heating from -50 °C to +200 °C

- Rapid cool-down and heat-up times
- Alternative: pressure and suction pump systems, particularly powerful with F33-SD
- Large bath depth with F33 models

The HighTech Series additionally provides:

- Adaptive self-tuning PID cascade control, adjustable PID parameters
- Direct measurement and control in the external system
- Display resolution 0.01 °C up to +99.99 °C
- Analog inputs and outputs e.g. for external programmer and temperature recorder
- PC communication with up to 31 units - with available built-in PROFIBUS (order no. 8 900 001)

with proportional cooling control on FP models

- Energy saving and less heat generation

| JULABO Order No. | JULABO Model 1) | Working temp. range °C | Temp. stability °C | Interface | Pressure / Suction pump capacity max. | | | | Bath opening/ bath depth W x L / D cm |
|---|-----------------|------------------------|--------------------|-----------|---------------------------------------|----------|-------|------|---------------------------------------|
| | | | | | l/min | mbar | l/min | mbar | |
| Refrigerated and Heating Circulators | | | | | The Economy Series | | | | |
| 9 110 612 | F12-EC | -20...100 | ± 0.03 | --- | 15 / 340 | --- | --- | --- | 15 x 16 / 15 |
| 9 110 625 | F25-EC | -25...100 | ± 0.03 | --- | 15 / 340 | --- | --- | --- | 12 x 14 / 15 |
| 9 110 634 | F34-EC | -25...100 | ± 0.03 | --- | 15 / 340 | --- | --- | --- | 24 x 30 / 15 |
| Refrigerated and Heating Circulators | | | | | The TopTech Series | | | | |
| 9 120 612 | F12-MP | -20...100 | ± 0.02 | --- | 10 / 120 | --- | --- | --- | 15 x 16 / 15 |
| 9 230 612 | F12-MV | -20...200 | ± 0.01 | RS232 | 15 / 340 | --- | --- | --- | 15 x 16 / 15 |
| 9 230 618 | FS18-MV 2) | -35...150 | ± 0.01 | RS232 | 15 / 340 | --- | --- | --- | --- |
| 9 120 625 | F25-MP | -28...100 | ± 0.02 | --- | 10 / 120 | --- | --- | --- | 12 x 14 / 15 |
| 9 230 625 | F25-MV | -28...200 | ± 0.01 | RS232 | 15 / 340 | --- | --- | --- | 12 x 14 / 15 |
| 9 120 626 | F26-MP | -28...100 | ± 0.02 | --- | 10 / 120 | --- | --- | --- | 12 x 14 / 15 |
| 9 230 626 | F26-MV | -28...200 | ± 0.01 | RS232 | 15 / 340 | --- | --- | --- | 12 x 14 / 15 |
| 9 230 632 | F32-MV | -35...200 | ± 0.01 | RS232 | 15 / 340 | --- | --- | --- | 18 x 12 / 15 |
| 9 235 632 | F32-MW | -35...200 | ± 0.01 | RS232 | 20 / 290 | 14 / 180 | --- | --- | 18 x 12 / 15 |
| 9 235 633 | F33-MW | -30...200 | ± 0.01 | RS232 | 20 / 290 | 14 / 180 | --- | --- | 23 x 14 / 20 |
| 9 130 634 | F34-MD | -30...150 | ± 0.01 | RS232 | 15 / 340 | --- | --- | --- | 24 x 30 / 15 |

| Refrigerated and Heating Circulators | | | | | The HighTech Series | | | |
|---|---------|-----------|--------|-----------|---------------------|-----------|--|--------------|
| 9 240 625 | F25-HD | -28...200 | ± 0.01 | RS232/485 | 20 / 340 | 14 / 220 | | 12 x 14 / 15 |
| 9 240 632 | F32-HD | -35...200 | ± 0.01 | RS232/485 | 20 / 340 | 14 / 220 | | 18 x 12 / 15 |
| 9 240 633 | F33-HD | -30...200 | ± 0.01 | RS232/485 | 20 / 340 | 14 / 220 | | 23 x 14 / 20 |
| 9 260 633 | F33-SD | -30...200 | ± 0.01 | RS232/485 | 24 / 560 | 16 / 400 | | 23 x 14 / 20 |
| 9 240 634 | F34-HD | -30...150 | ± 0.01 | RS232/485 | 20 / 340 | 14 / 220 | | 24 x 30 / 15 |
| | | | | | | | | |
| Refrigerated and Heating Circulators with proportional cooling control | | | | | The TopTech Series | | | |
| 9 230 640 | FP40-MV | -40...200 | ± 0.02 | RS232 | 15 / 340 | --- / --- | | 23 x 14 / 20 |
| 9 230 650 | FP50-MV | -50...200 | ± 0.02 | RS232 | 15 / 340 | --- / --- | | 18 x 12 / 15 |

| Refrigerated and Heating Circulators with proportional cooling control | | | | | The HighTech Series | | | |
|---|------------|-----------|--------|-----------|---------------------|----------|---------------------|--------------|
| 9 240 640 | FP40-HD | -40...200 | ± 0.01 | RS232/485 | 20 / 340 | 14 / 220 | | 23 x 14 / 20 |
| 9 260 640 | FP40-SD | -38...200 | ± 0.01 | RS232/485 | 24 / 560 | 16 / 400 | | 23 x 14 / 20 |
| 9 240 645 | FP45-HD | -42...200 | ± 0.01 | RS232/485 | 20 / 340 | 14 / 220 | | 23 x 26 / 20 |
| 9 240 650 | FP50-HD | -50...200 | ± 0.01 | RS232/485 | 20 / 340 | 14 / 220 | | 18 x 12 / 15 |
| | | | | | | | | |
| Refrigerated and Heating Circulators with proportional cooling control | | | | | | | The HighTech Series | |
| 9 300 618 | FS18-HP 2) | -35...150 | ± 0.01 | RS232/485 | 20 / 340 | 14 / 220 | | --- |
| 9 300 625 | F25-HP | -28...200 | ± 0.01 | RS232/485 | 20 / 340 | 14 / 220 | | 12 x 14 / 15 |
| 9 300 626 | F26-HP | -28...200 | ± 0.01 | RS232/485 | 20 / 340 | 14 / 220 | | 12 x 14 / 15 |
| 9 300 632 | F32-HP | -35...200 | ± 0.01 | RS232/485 | 20 / 340 | 14 / 220 | | 18 x 12 / 15 |
| 9 300 634 | F34-HP | -30...150 | ± 0.01 | RS232/485 | 20 / 340 | 14 / 220 | | 24 x 30 / 15 |
| 9 300 640 | FP40-HP | -40...200 | ± 0.01 | RS232/485 | 20 / 340 | 14 / 220 | | 23 x 14 / 20 |
| 9 320 640 | FP40-SP | -40...200 | ± 0.01 | RS232/485 | 24 / 560 | 16 / 400 | | 23 x 14 / 20 |
| 9 300 645 | FP45-SP | -42...200 | ± 0.01 | RS232/485 | 24 / 560 | 16 / 400 | | 23 x 26 / 20 |
| 9 300 650 | FP50-HP | -50...200 | ± 0.01 | RS232/485 | 20 / 340 | 14 / 220 | | 18 x 12 / 15 |