# Recirculating Chillers

BRC-03, BRC-05, BRC-10 & BRC-20


## Redesigned for Improved Performance – and the environment

The BEING BRC Series cooling/heating recirculating chillers provide continuously reliable and stable laboratory temperature control for a wide range of applications, including medical diagnostic equipment, rotary evaporators, vacuum systems, plasma etching, laser etching, and jacketed reactors. The BRC-03, BRC-05, and BRC-10 have also been designed to meet the EPA refrigerant regulations.

## Construction Features

- Available in 4 sizes: 5L, 8L, 15.5L, and 30L
- Corrosion-resistant stainless steel chamber and heater
  - Maintenance-free operation
  - Rounded corners for quick and easy cleaning
- Independent circulating pump switch
  - Easy switching between internal and external circulating modes
  - Easy cycle starting/stopping
- Air-cooled heat exchanger with front accessible air filter for quick and easy cleaning
- DC magnetic vortex pump
  - Low noise emissions
  - High flow rate output
- Energy-efficient condenser using eco-friendly refrigerant (R290 / R410A)

## Performance Features

- Temperature Range: –20°C to 20°C
- Max. Flow Rate: 17 L/min
- Max. Pump Head: 15 meters
- Max. Pump Pressure: 22 psi / 152 kPa

## Controller Features

- PID automatic control provides accurate and reliable temperature control
- Large intuitive LCD display
- Automatic power on/off
- Compressor lock-out prevents over cycling of the compressor
- Programmable function
  - Fixed value program
  - Multi-step: 8 programs, 8 steps
  - Untimed and timed programs
  - Program time from 1 minute to 99 hours 59 minutes

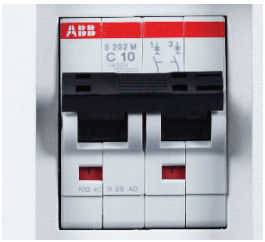
## Safety Features

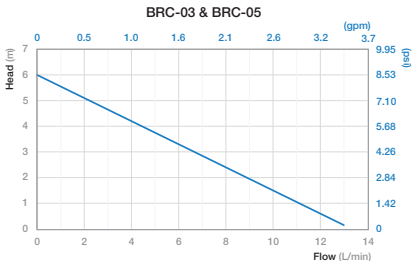
- Independent over-temperature protection meets DIN 12880 International standard requirements
- Temperature limit protection
- Over-current protection
- Power off memory

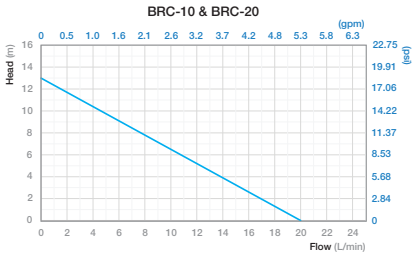
Intelligent controller with bright, easy-to-understand LCD display.


Push-to-connect fittings provide swiveling and secure, quick, and easy tubing connection.

Easily accessible circuit breaker powers and protects the chiller.

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# Specifications

| Model | | | | | BRC-03 | BRC-05 | BRC-10 | BRC-20 |
|---|---|---|---|---|---|---|---|---|
| Catalog Number | | | | | BRC15103U | BRC15105U | BRC15110U | BRC15120C |
| Reservoir Capacity | Total Storage Volume (L) | | | | 5 | 8 | 15.5 | 30 |
| | Cooling Fluid Volume (L) | | | | 3.5 | 5.2 | 13 | 25 |
| Operating Conditions* | Environment Temperature Range | | | | 41°F to 95°F / 5°C to 35°C | | | |
| | Relative Humidity (%RH) | | | | ≤65 | | | |
| | Altitude | | | | 6,562 / 2,000 | | | |
| Cooling Features | Lowest Temp Without Load | | | | –20°C | | | |
| | Temperature Range | | | | –4°F to 68°F / –20°C to 20°C | | | |
| | Temperature Stability | | | | ± 2°C | | | |
| | Cooling Capacity | @20°C | W | | 580 | 900 | 1800 | 2800 |
| | | @10°C | | | 530 | 800 | 1500 | 2500 |
| | | @0°C | | | 470 | 730 | 1400 | 2100 |
| | | @–10°C | | | 300 | 570 | 1000 | 1900 |
| | | @–20°C | | | 100 | 250 | 500 | 900 |
| | Refrigerant | Compressor | | | 1/2 Hp Reciprocating | | 1 Hp Reciprocating | 2 Hp Reciprocating |
| | | Type | | | R290 | | | R410A |
| | | Charge (g) | | | 90 | 150 | 150 | 1050 |
| | | GWP | | | 3 | | | 1924 |
| Electrical | Whole unit power (W) | | | | 550 | 600 | 1300 | 1600 |
| | Power Requirement | | | | 115VAC / 60Hz | | | 208-230VAC / 60Hz |
| | Plug Type | | | | NEMA 5-15 | | | NEMA 6-15 |
| Safety Features | | | | | Delay, leakage, overcurrent, overvoltage | | | |
| Pump | Pump Type | | | | DC Magnetic Drive Vortex | | | |
| | Recirculating Pump Power (W) | | | | 30 | | 60 | |
| | Pump Flow Rate (L/min) | | | | 6 | | 17 | |
| | Max. Pump Head (m) | | | | 9 | | 15 | |
| | Pump max pressure (psi / kPa) | | | | 13 / 90 | | 22 / 152 | |
| | Inlet/Outlet Tube OD (mm) | | | | Ø10 (DN15) | | Ø12 (DN15) | |
| | Inlet/Outlet Fitting Type | | | | Push-to-Connect | | | |
| Noise (dB) | | | | | ≤45 | | ≤55 | ≤65 |
| Feet / Casters | | | | | Feet | Locking Casters | | |
| Dimensions | Reservoir | H x W x D | (in / mm) | | 9.5 x 5.9 x 5.9<br>240 x 150 x 150 | 9.5 x 7.9 x 6.7<br>240 x 200 x 170 | 10.6 x 9.5 x 9.5<br>270 x 240 x 240 | 13.8 x 13.8 x 9.8<br>350 x 350 x 250 |
| | Exterior† | | | | 21.1 x 9.1 x 17.7<br>536 x 230 x 450 | 24.6 x 12.4 x 17.9<br>624 x 315 x 455 | 32.1 x 15.8 x 19.7<br>814 x 400 x 500 | 35.3 x 17.7 x 23.6<br>896 x 450 x 600 |
| Weight (lb / Kg) | | | | | 70.6 / 32 | 90.4 / 41 | 132.3 / 60 | 167.6 / 76 |

**NOTE:** All specifications listed are based on testing done at 25°C.

*Optimal performance is achieved when the environmental temperature is at 20°C - 22°C (68°F - 72°F). Higher temperatures, as well as higher relative humidity and higher altitude, will reduce the unit's cooling capacity and efficiency.
† Including Casters


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