

Datasheet - Kodiak® Series Recirculating Chillers

BOYD
TRUSTED INNOVATION

Kodiak® Recirculating Chillers

Boyd's Kodiak® recirculating chillers maintain precise temperature control (up to $+\text{-}0.1^{\circ}\text{C}$) and liquid cooling below ambient. Our recirculating chillers utilize compression-based cooling to accurately control liquid system temperatures with a nominal cooling capacity between 600W to 11,000W.

Kodiak® recirculating chillers come in both air-cooled and water-cooled versions to meet your system requirements. Boyd's chillers are available with multiple pump options that provide flow rates from 1 GPM to 12 GPM. With a wide variety of additional features and safety options, our Kodiak® recirculating chiller line is highly configurable to meet your specific application requirements. In addition, our recirculating chillers possess performance-matched, high reliability components and contain vibration isolation to ensure quiet, high performance, and reliable operation while still being easy to use.

Kodiak® recirculating chillers are ideal solutions for many liquid cooling applications such as 3D printers, lasers, laboratory and medical equipment, semiconductor processing, and general industry.

Features and Benefits

- Liquid Cooling Below Ambient Temperature
- Precise Temperature Control $\{+\text{-}0.1^{\circ}\text{C}\}$
- Cooling Capacities from 600W to 11,000W
- Multiple Options and Features (Air-cooled and water-cooled configurations, electrical configurations, pump performance, communications, etc.)
- All Kodiak® Recirculating Chillers are both UL and CE Certified



Performance Specifications

Specification	RC009	RC011	RC022	RC045	RC095	RC115
Cooling capacity (@20°C process and ambient)	1050W	1650W	2400W	5900W	9600W	11000W
Temperature stability	+/-0.1°C					
Fluid connection	1/2" FNPT				3/4" FNPT	
Reservoir capacity	4 liters / 1 gal	8 liters / 2 gal	23 liters / 6 gal	6.5 liters / 1.75 gal		
Coolant temp range		5 - 35°C / 41 - 95°F			4 - 35°C / 39 - 95°F	
Ambient temp range		10 - 35°C / 50 - 95°F			5 - 35°C / 41 - 95°F	
Dimensions (W x D x H) mm and inches	318 x 483 x 559 12.5 x 19 x 22	376 x 623 x 673 14.8 x 24.5 x 26.5	543 x 705 x 810 21.4 x 27.8 x 31.9	813 x 1092 x 1143 32 x 43 x 45		
Dry weight	45 kg 100 lbs	55kg 122 lbs	75 kg 166 lbs	122 kg 270 lbs	235 kg 517 lbs	

Electrical configurations with full load amperage:

G03 (115V, 1Ph, 60Hz)	12.2A	14.3A	NA	NA	NA	NA
H03 (230V, 1Ph, 50Hz)	5.3A	6.3A	9.5A	17.2A	NA	NA
J03 (208/230V, 1Ph, 60Hz)	5.8A	7.4A	10.0A	19.6A	NA	NA
M01 (200-220V, 3Ph, 50Hz 208-230V, 3Ph, 60Hz)	NA	NA	NA	NA	22.2A	22.2A
R01 (460V, 3Ph, 60Hz)	NA	NA	NA	NA	11.0A	11.0A
T01 (380V, 3Ph, 50Hz)	NA	NA	NA	NA	11.0A	11.0A
Pump options**						
BB (PD, Brass, 1.3 GPM / 4.9 LPM)	•	•	•			
BC (PD, Brass, 1.8 GPM / 6.8 LPM)	•	•	•			
BE (PD, Brass, 2.3 GPM / 8.7 LPM)	•	•	•			
BG (PD, Brass, 4.3 GPM / 16.3 LPM)		•	•	•		
CB / CC / CE / CG (SS version of brass PD pumps noted above)						
AA (Centrifugal, 1/20HP)	•					
DA (Centrifugal, 1.5HP)		•	•	•		
DF (Centrifugal, 1.5HP)					•	•
EC (Turbine, 1/6HP)	•	•	•			
EB (Turbine, Bronze, 3/4HP)		•	•	•		
ED (Turbine, Bronze, 1.5HP)					•	•
FB (Turbine, SS, 3/4HP)		•	•	•		
FD (Turbine, SS, 1.5HP)					•	•

*PDP = Positive Displacement Pump

Additional Features:

RC009 / RC011 / RC022 / RC045: External Flow Valve (Manually adjustable globe or ball valve), 0.1°C Setpoint, Remote Start, 5 Micron Water Filter, Air Filter, and Microprocessor Temperature Controller with: RS-232 Interface, Digital Pressure Sensing, Low Level, Low/High Temp, Fault Shut Off (Toggle on/off), Relay Contacts (configurable as normally open or normally closed), Digital Temperature Display, Calibration Offset, Low Flow Shut Off, Auto-Restart, °C/°F Toggle, Audible Alarm, and Alarm Mute.

RC095 / RC115: Air Filter, External Flow Valve (Manually adjustable ball valve), 5 Micron Water filter, and Microprocessor Temperature Controller with: 0.1°C Setpoint, Digital temperature and pressure display, low level, low/high temp, and refrigerant visual alarms, low coolant flow and low refrigerant pressure shut off, auto-restart, °C/°F toggle, 9 pin D connector with RS-232 communication.

Feature Options

Contact your Boyd representative for available options, such as water-cooled in lieu of air-cooled, RS-232, RS-485, and Ethernet communications, external flow control, low temperature package, high purity plumbing, anti-siphon package, heater option, particle filters.

*Graphs showing cooling capacity as a function of process supply temperature at 20°C and 30°C ambient available upon request.

**Contact your Boyd representative for flow vs. pressure drop curves for each pump option.

Ordering Information

Contact your Boyd representative or visit our website (www.boydcorp.com) for more information on our Kodiak® Recirculating Chillers, including selection of the right configuration of features and options for your application. Boyd offers a wide range of high-performance cooling products for your application, including liquid to air and liquid to liquid heat exchangers, liquid cold plates, and custom recirculating chiller cooling systems.

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