

Brief Description

Application

All CPC Series 050-150 Series portable chillers have a **leaving water temperature range of 30°F to 65°F (-1°C to 18°C)**. Consult factory for applications outside this range. CPC050-150 portable chillers come standard with:

Mechanical

Compressor: Hermetic reciprocating
Evaporator: Tube-in-tube
Condenser: Aluminum fin/copper tube
Reservoir: Six (6) -gallon (22.7 liter) polyethylene tank with external fill/drain sight glass
Piping: Non-ferrous construction
Pump: Regenerative turbine horizontally-mounted non-ferrous

Other Mechanical

Structural steel frame and panels with 2" (51 mm) swivel casters
 Pressure-actuated Process water bypass valve for system protection only
 To Process 2.5" (63 mm) -dia. dual scale liquid-filled water pressure gauge
 Fully insulated refrigeration and process piping
 Patented fixed orifice-plate bypass

Refrigeration

Filter dryer
 HFC-134A refrigerant for SMC-050 and CPC-050 and CPC-100 models
 HCFC-22 refrigerant for CPC-150 models
 High and low refrigerant pressure cut-outs
 Hot gas bypass capacity control
 High-pressure spring-actuated pressure relief valve
 Sight glass
 Thermal expansion valve
 Multiple refrigeration access ports

Controls

Off-the-shelf microprocessor-based PID auto-tuning controller with To Process and Set Point LED readout

Electrical

Fully-accessible NEMA 1-style electrical control enclosure
 Single-point power and ground connection

Warranties

1 year on compressor; 2 years on parts; 3 year limited warranty on controller

Nominal					Nominal					Nominal				
Model number	chilled gpm	water lpm	Compressor hp	Compressor kW	Model number	chilled gpm	water lpm	Compressor hp	Compressor kW	Model number	chilled gpm	water lpm	Compressor hp	Compressor kW
CPC-050	1.2	4.5	0.5	0.373	CPC-100	2.4	9.0	1	0.746	CPC-150	3.6	13.6	1.5	1.12

CPC 050-150 Series Option Availability

✓ denotes availability

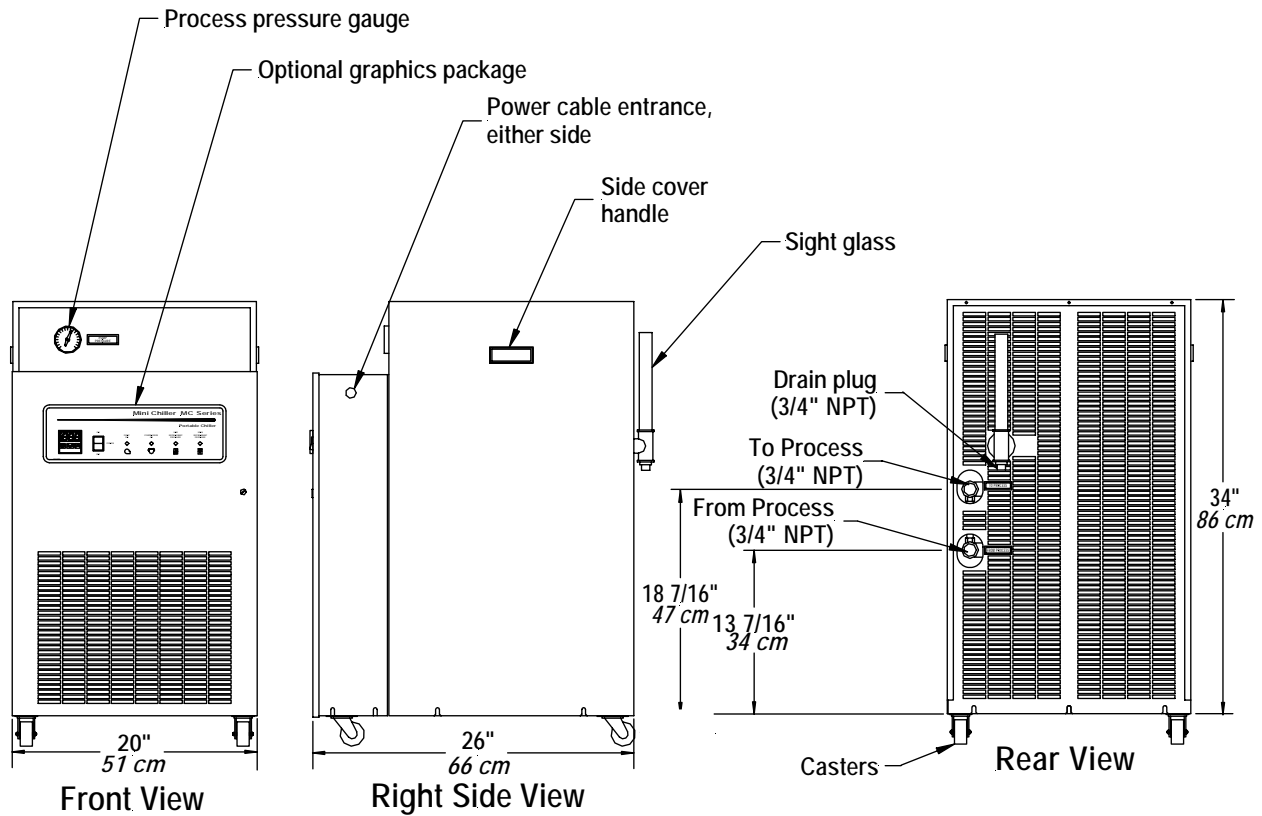
Option description	Add'l. min. lead time (wks.)	Availability
Pump – cast iron ①	Configure-to-Order	✓
Pumps – bronze:		Standard
A – BZ050A, BZ100A, BZ150A		✓
B – BZ050B, BZ100B, BZ150B		✓
C – BZ050C, BZ100C, BZ150C		✓
Crankcase pressure regulating (CPR) valve ②		✓
Graphic display package; Pump On, Compressor On Low Refrigerant Pressure, High Refrigerant Pressure, Hot Gas Bypass	Configure-to-Order	✓
High temperature audible/visual alarm: 85 dB @ 2 ft. (61 cm) audible alarm buzzer / 108,000 peak candlepower, 80 flash/min. visual strobe, and silence button	Configure-to-Order	✓
Power cord (less plug) Process piping brass 20 mesh strainer; shipped loose Sight glass guard	Configure-to-Order	✓
External communications 50 Hz operation; multiply capacity by 0.83 IEG-1 Inhibited ethylene glycol	Consult factory	
Four-year additional compressor warranty	Not applicable	③

① Does not maintain non-ferrous construction integrity. ③ See Water Treatment tech spec page, Bulletin No. CW7-511.

② **Required** for a chilled water supply treatment range of 66°F to 75°F (19°C to 24°C); CPR valve prevents compressor motor overloading.

-See Page 2 for CPC 050-150 Specifications-

Typical CPC-050-150 Series Chiller



CPC 050-150 Series Specifications
American Standards

Model number	Capacity @ 65°F LWT, 75°F ambient BTUH	Capacity @ 50°F LWT, 90°F ambient BTUH	Nominal chilled water gpm	Refrigerant	Compressor hp	Standard pump	Process connection inches NPT	FLA draw: 208-230/1/60	Oper. wt. lbs.	Ship wt. lbs.
CPC-050	8,100	4,800	1.2	HFC-134A	0.5	1.2 gpm @ 24 psig	0.75"	10A	265	275
CPC-100	14,000	9,500	2.4	HFC-134A	1	2.4 gpm @ 34 psig	0.75"	13A	325	335
CPC-150	25,400	16,000	3.6	HFC-22	1.5	3.6 gpm @ 24 psig	0.75"	19A	345	355

Metric Standards

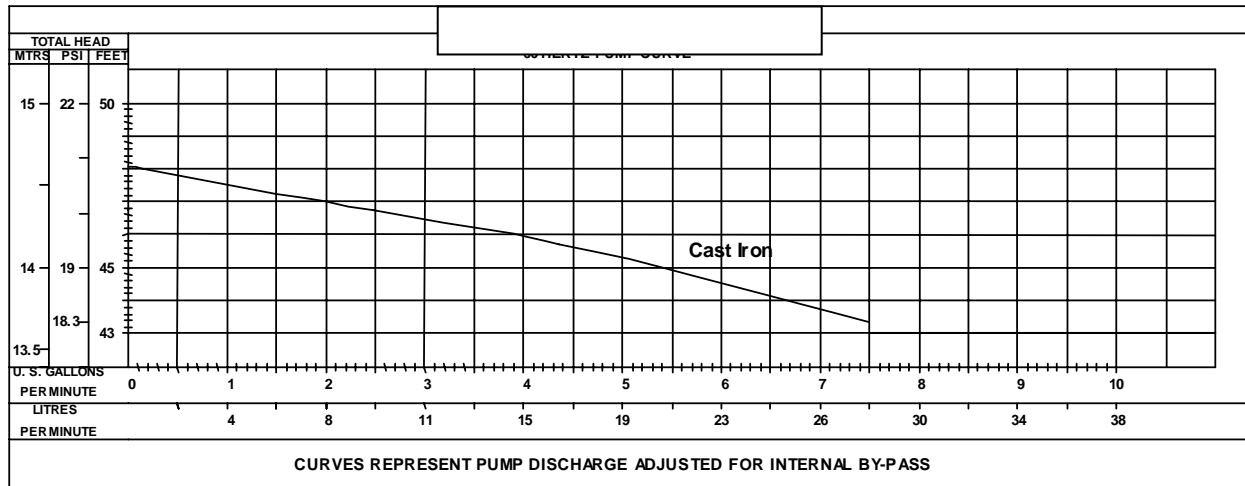
Model number	Capacity @ 18°C LWT, 24°C ambient watts	Capacity @ 10°C LWT, 32°C ambient watts	Nominal chilled water lpm	Refrigerant	Compressor hp kW	Standard pump	Process connection mm NPT	FLA draw: 208-230/1/60	Oper. wt. Kg	Ship wt. Kg
CPC-050	2,374	1,407	4.5	HFC-134A	0.5 .37	4.5 gpm @ 24 psig	19	10A	121	125
CPC-100	4,103	2,800	9.0	HFC-134A	1 .75	9.0 gpm @ 34 psig	19	13A	148	153
CPC-150	7,444	4,690	13.6	HFC-22	1.5 1.12	13.6 gpm @ 24 psig	19	19A	157	162

-See Pages 3 and 4 for Water Circuit Pressure Drop Tables and Pump Curves-

CPC 050-150 Series Water Circuit Pressure Drop Table

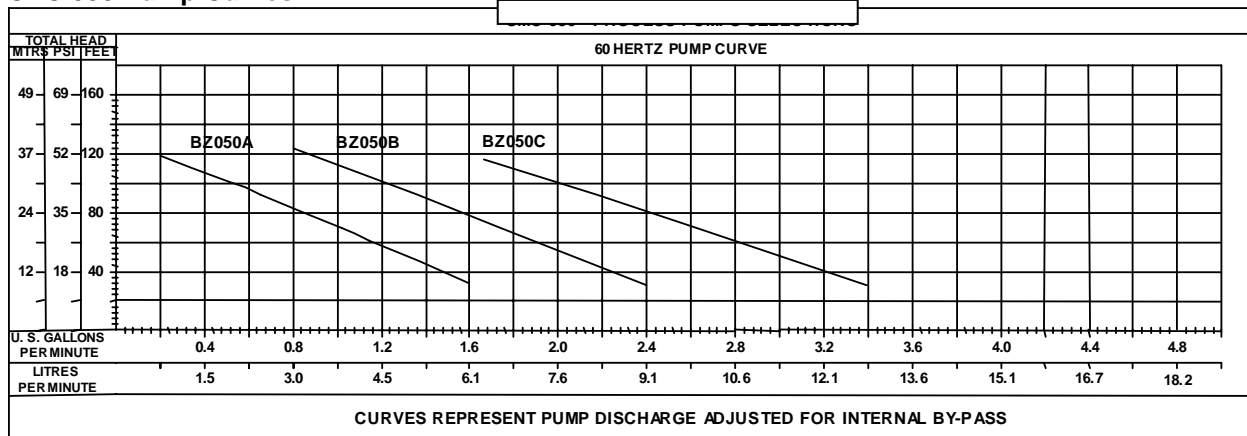
Model	gpm	lpm	ΔP (psig)	ΔP (kPa)	ΔP (bars)
CPC-050	2.0	7.5	2.5	17.3	0.17
	2.4	9.0	4.0	27.6	0.28
	3.6	13.6	7.5	51.8	0.52
	4.8	18.1	12.5	86.2	0.86
CPC-050	2.0	7.5	2.5	17.3	0.17
	2.4	9.0	2.5	17.4	0.17
	3.6	13.6	3.0	20.7	0.21
	4.8	18.1	5.0	34.5	0.35
CPC-150	2.0	7.5	2.5	17.3	0.17
	2.4	9.0	2.5	17.3	0.17
	3.6	13.6	3.0	20.7	0.21
	4.8	18.1	3.5	24.2	0.24

Cast Iron Centrifugal Pump Curve 1/3 hp (0.249 kW)



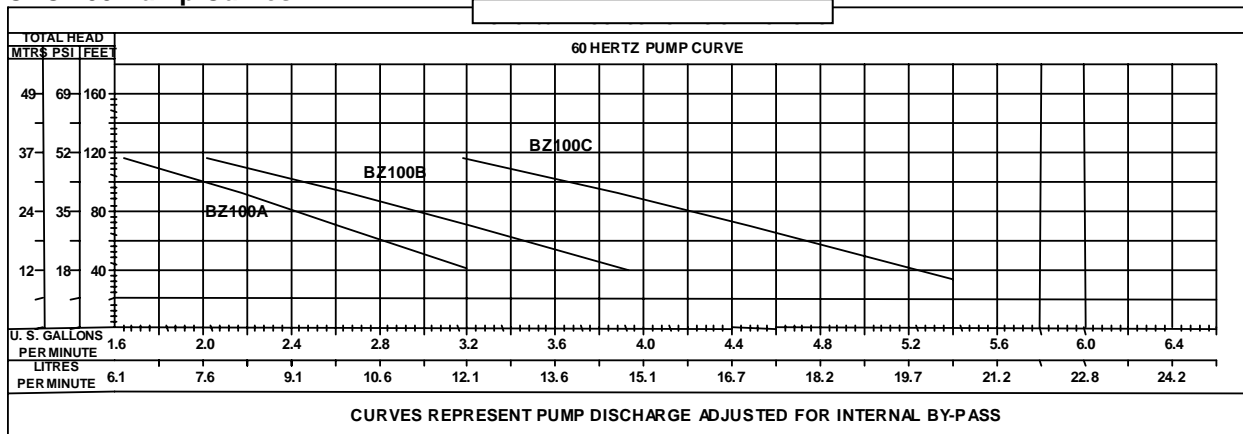
Do not extrapolate pump curves.

CPC 050 Pump Curves



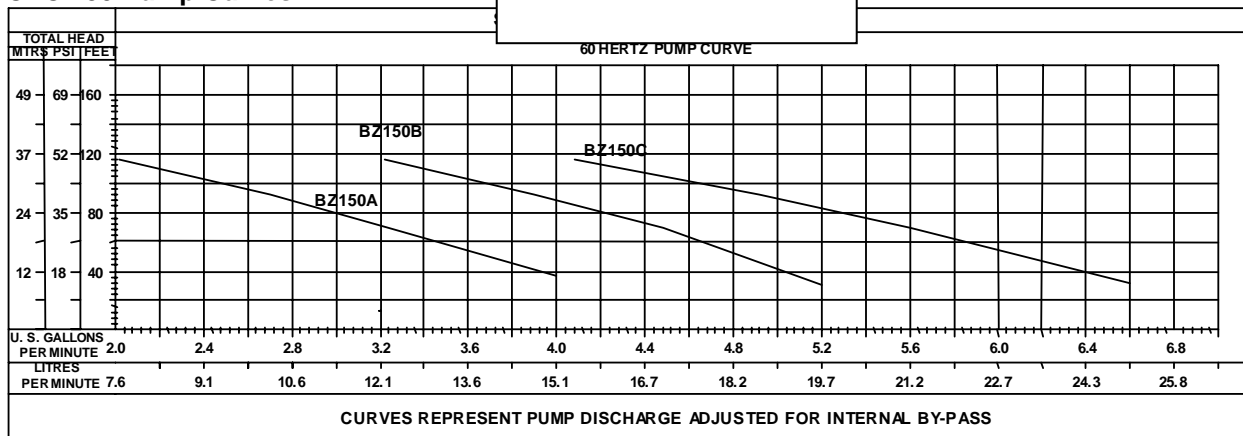
Do not extrapolate pump curves.

CPC 100 Pump Curves



Do not extrapolate pump curves.

CPC 150 Pump Curves



Do not extrapolate pump curves.

www.colortronicna.com

Corporate Headquarters:
 Colortronic North America, Inc.
 4100 Market Place
 Flint, MI 48507
 PH: 810-720-7300
 FX: 810-720-2598
colortronicweb@corpemail.com

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