

Centrifugal Circulating Water Pumps

For Use In Tempered Water Air Conditioning Systems



Left to right: PH3000BX-SP and CPOD120BX pumps shown

Cruisair specifies reliable, heavy-duty water pumps for use in circulated water air conditioning systems. All pumps are centrifugal, with bronze and stainless components.

Pumps are available with 115/230V single-phase, or 230/460 3-phase, dual voltage motors. Most are rated for 50/60 Hz use, but special 50 Hz only pumps are also available for full performance.

Circulation pumps are sized for the total loop capacity. Cruisair design specification is 3 gpm (11.4 lpm) per 12,000 Btu/hr capacity, rated at 40' (12.2 meters) head. Seawater pumps are selected for the tempering unit capacity, at 250 gph (15.8 lpm) per 12,000 Btu/hr.

Self-priming seawater pumps are available for installations where the pump cannot be mounted below the water line, or if air is able to enter the system such as on a sailboat or high speed craft.

Pump relays are used to control each pump. The circulation pump must run whenever the system is cooling or heating, and the seawater pump is typically cycled with the tempering units.

Single-phase pumps have internal overload protection. An external overload relay should be used with 3-phase pumps.

Key Benefits

- High-capacity centrifugal pumps
- Seawater-grade construction with glass-filled polypropylene or bronze pump heads
- Single-phase 115/230V or three-phase 230/460V dual voltage
- 50 or 60Hz models
- Rated at 40 ft. (12.2 m) of head
- Meet or exceed applicable ABYC and US Coast Guard regulations, CE directives, and general Air Conditioning and Refrigeration (ARI) standards

Specifications for Centrifugal Circulating Water Pumps

Model ⁽¹⁾	CP0D80BX	CP0D120BX	CP0D120B3X	CP0D120B3XK	CP0D180BX	CP0D180B3X	CP0D180B3XK	CP0D240BX	CP0D240B3X	CP0D240B3XK	CP0D360B3X	CP0D500BX	CP0D500B3X	CP0D500B3XK	CP0D500BX/M-306	CP0D800B3X
Capacity (BTU/h) ⁽²⁾	80000	120000	120000	120000	180000	180000	180000	240000	240000	240000	360000	500000	500000	500000	500000	800000
Voltage (V)	115	115	380	380	115	380	380	115	380	380	230	115	230	230	115	230
Cycle 1 (Hz)	50	50	50	50	50	50	50	50	50	50	50	50	60	60	50	50
Cycle 2 (Hz)	60	N/A	N/A	N/A	60	N/A	N/A	60	N/A	N/A	N/A	60	60	60	60	60
Phase (Ph)	1	3	3	3	1	3	3	1	3	3	3	1	3	3	1	3
Amps (A) ⁽³⁾	8	14	2.8	5.2	14	14.2	7	16	4	2.2	N/A	19.2	7	7	9.6	9.6
Chilled Water Inlet Connection (in)	1 1/4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2	2	2	2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
Chilled Water Discharge Connection (in)	1	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1	1	1	1	1	1
Height (in/mm)	6.5/166	9.4/239	9.4/239	9.4/239	9.4/239	9.4/239	9.4/239	8.6/219	8.6/219	8.6/219	8.6/219	10/254	10/254	10/254	TBD	10/254
Width (in/mm)	6.5/166	6.5/166	6.5/166	6.5/166	6.5/166	6.5/166	6.5/166	10/254	10/254	10/254	11/280	11/280	11/280	11/280	TBD	11/280
Depth (in/mm)	12.8/326	14.5/369	14.5/369	15.6/397	15.8/402	15.6/397	15.6/397	15.9/404	15.9/404	15.9/404	16.1/409	18/458	18/458	18/458	TBD	18/458

¹ For information about pumps larger than P711, please call the applications department at 954-973-2477.
² Determined using an average of 3 GPM per ton (12,000 BTU/hr) of air conditioning at given GPM and head, and are rated for direct expansion (DX) systems only.
³ 'N/A' indicates a dual voltage pump. Please contact Dometic Marine sales at 954-973-2477 for specific amperage based on your voltage requirements.

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Specifications and availability subject to change without notice.

Dealer



Pump Packages for Chilled Water Systems

Convenient Solutions for Simpler Chiller Installations



Pump packages reduce the installation time of chilled water systems by combining several necessary components in one convenient package. The packages include a chilled-water pump, expansion tank, pump drain pan, dual-scale (psi/kPa) pressure gauge, and fill assembly. The fill assembly includes a hose connection, ball valve, and pressure-reducing valve.

The cushion of air in the expansion tank allows the water to expand and contract with temperature fluctuations. This relieves pressure that might otherwise result in leaks.

The latest design includes a bladder-style expansion tank. Without the bladder, air in the expansion tank would gradually dissolve into the water and be bled off. Eventually, the protective cushion of air would be gone.

The pressure gauge is connected to an inlet pipe on the pump for the most accurate reading of system return water pressure.

Key Benefits

- Convenient packaging of multiple essential components simplifies installation
- Expansion tank protects against thermal expansion
- Bladder-style expansion tank protects against loss of air cushion
- Dual-scale pressure gauge is convenient for US and international customers
- Pressure gauge connected to inlet pipe gives most accurate reading

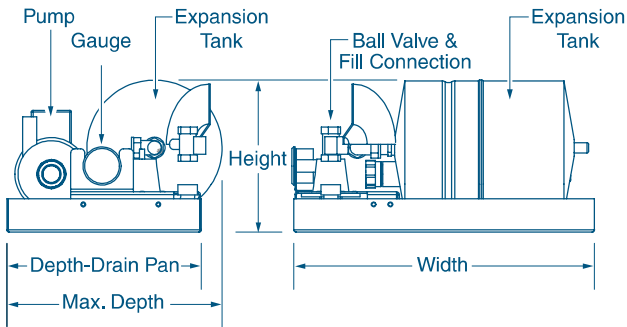
Specifications for Pump Packages for Chilled Water Systems

Model ⁽¹⁾	PMA1000			P700		P120	
Voltage (V)	115	230	240	115	230	115	230
Cycle (Hz)/Phase (Ph)	60/1			50/1		60/1	
Total Air Handler Capacity (BTU/h)	16000 - 23000			16000		24000 - 48000	
Inlet Connection (in)	1/2" /MPT			1" /FPT		1" /FPT	
Outlet Connection (in)	1" /FPT			1 1/4" /FPT		1 1/4" /FPT	
Height (in/mm)	9.2/234			9.5/242		9.2/234	
Width (in/mm)	12.9/328			17.1/435		12.9/328	
Depth-Drain Pan (in/mm)	18/458			18/458		18/458	
Max. Depth (in/mm)	18/458			18/458		18/458	
Net Weight (lbs/kg)	33/15			49/22.3		48/21.8	
Gross Weight (lbs/kg)	47/21.4			62/28.2		62/28.2	

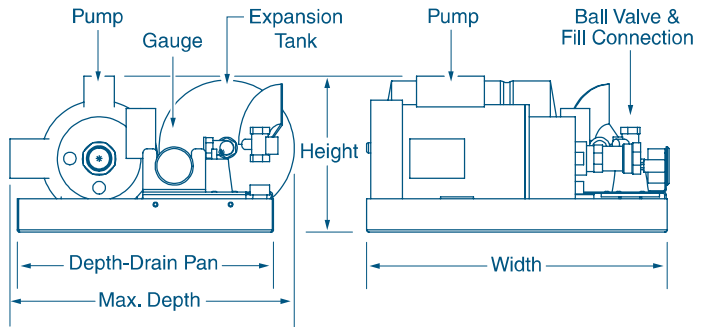
¹ Pump packages do NOT include a backflow preventer. If the chilled water fill assembly is fed by a potable water supply, then a reduced pressure zone (RPZ) backflow preventer should be installed between the fill assembly and the supply to prevent contamination of the potable water.

Dimensions

PMA1000



P120/P700



Safety Notice:

Pump packages do NOT include backflow preventers. If the chilled water fill assembly is supplied by a potable water supply, then a reduced pressure zone (RPZ) backflow preventer should be installed between the fill assembly and the potable water supply to prevent contamination of the water.

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