

FEATURES

- Pumps are centrifugal type, providing longevity, quiet operation and minimum maintenance.
- Three phase AC motors are ignition protected. Single phase AC motors have built-in thermal overload protection. Single phase pumps P-700 and smaller are ignition protected.
- Pump wetted components are constructed of high quality, non-corrosive materials.
- Most pump heads are easily rotated, allowing proper application, maintenance and service.
- All threaded intake and discharge ports are U.S. standard taper pipe thread (NPT).
- Each pump is supplied with a vibration isolated mounting bracket, intake and discharge hose fittings and electrical connections.
- All units meet or exceed applicable ABYC and U.S. Coast Guard regulations, CE Directives and general Air Conditioning and Refrigeration Industry (ARI) standards.



SPECIFICATIONS ⁽¹⁾

Model	Volt/Hz/phase	Amps	IP ⁽²⁾	HP	Pump Head ⁽³⁾ Ft. H ₂ O	GPM ⁽⁴⁾	Capacity BTU/Hr ⁽⁵⁾	Inlet x Outlet (inches)	Dimensions H x W x L (in & mm)	Net Weight (lbs/kg)
PDS250	115/60/1	1.5	Y	1/40	7	3	12,000	1/2MPT x	3.75x3.75x4.75	4.8/2.2
PDS250C	230/50-60/1	0.9	Y	1/40	7	3	12,000	1/4MPT	95x95x121	
PML250	115/60/1	1.0	Y	1/35	7	3	12,000	3/4MPT x	4.7x5.6x6.2	5.0/2.3
PML250C	230/50-60/1	0.5	Y	1/35	7	3	12,000	1/4MPT	119x142x157	
PDS500	115/60/1	2.5	Y	1/15	7	6	24,000	3/4MPT x	4.25x4.25x6.25	8.8/4.0
PDS500C	230/50-60/1	1.3	Y	1/15	7	6	24,000	1/2MPT	108x108x159	
PML500L	115/60/1	2.0	Y	1/20	14	6	24,000	3/4FPT x	5.6x5.6x7.4	9.0/4.1
PML500CL	230/50-60/1	1.0	Y	1/20	14	6	24,000	1/2MPT	142x142x188	
PML500CK	220/50/1	0.8	Y	1/20	9.5	5	20,000			
PMA500	115/60/1	2.4	Y	1/12	14	7.5	30,000	3/4FPT x	5.0x4.0x9.0	7.0/3.2
PMA500C	230/50-60/1	1.2	Y	1/12	14	7.5	30,000	1/2MPT	127x102x229	
PMA500CK	220/50/1	0.9	Y	1/12	11	5	20,000			
PMA1000	115/60/1	2.1	Y	1/8	14	12	48,000	1FPT x	6.25x4.5x9.1	10/4.5
PMA1000C	230/50-60/1	1.0	Y	1/8	14	12	48,000	1/2MPT	159x114x231	
P100	115/60/1	7.2	Y	1/3	16	15	60,000	1.25FPT x	6.5x6.5x13.0	25/11
P100Z	230/50-60/1	3.6	Y	1/3	16	15	60,000	1FPT	165x165x330	
P110Z-3PH	230/50-60/3	2.8	Y	1/2	20	18	72,000	1.25FPT x	8.0x7.5x15.4	25/11
P110-460/3PH	460/60/3	1.4	Y	1/2	20	18	72,000	1FPT	203x191x391	
P110-380/3PH	380/50/3	1.7	Y	1/2	15	15	60,000			
P120	115/60/1	4.9	Y	1/3	25	21	84,000	1.25FPT x	6.5x6.5x13.0	25/11
P120Z	230/50-60/1	3.5	Y	1/3	25	21	84,000	1FPT	165x165x330	
P700	115/60/1	7.2	Y	1/3	21	32	128,000	1.25FPT x	6.5x6.5x13.0	26/12
P700Z	230/50-60/1	3.6	Y	1/3	21	32	128,000	1FPT	165x165x330	
P700Z-3PH	230/50-60/3	2.8	Y	1/2	32	32	128,000	1.25FPT x	8.0x7.5x15.4	30/14
P700-460/3PH	460/50-60/3	1.4	Y	1/2	32	32	128,000	1FPT	203x191x391	
P700Z50-3PH	220/50/3	2.9	Y	1/2	21	32	128,000			
P700-380/3PH	380/50/3	1.7	Y	1/2	21	32	128,000			
P710	115/60/1	9.8	N	1/2	32	43	172,000	1.5FPT x	9.4x7.5x15.4	34/15
P710Z	230/50-60/1	4.9	N	1/2	32	43	172,000	1.5FPT	239x191x391	
P710Z-3PH	230/60/3	2.2	Y	1/2	32	43	172,000			
P710-460/3PH	460/60/3	1.1	Y	1/2	32	43	172,000			
P710Z50	220/50/1	7.2	N	3/4	30	43	172,000			
P710Z50-3PH	220/50/3	3.3	Y	3/4	30	43	172,000			
P710-380/3PH	380/50/3	1.9	Y	3/4	30	43	172,000			
P711	115/50-60/1	16.0	N	1	42	54	216,000	1.5FPT x	9.4x7.5x15.4	37/17
P711Z	230/50-60/1	8.0	N	1	42	54	216,000	1.5FPT	239x191x391	
P711Z-3PH	230/60/3	4.2	Y	1	42	54	216,000			
P711-460/3PH	460/60/3	2.1	Y	1	42	54	216,000			
P711Z50-3PH	220/50/3	4.4	Y	1	44	54	216,000			
P711-380/3PH	380/50/3	2.5	Y	1	44	54	216,000			
P711Z 1.5HP	230/60/1	10.0	N	1.5	45	60	240,000	1.5FPT x	9.4x7.5x15.4	49/22
P711Z50 1.5HP	220/50/1	10.5	N	1.5	45	60	240,000	1.5FPT	239x191x391	
P800 12VDC	12 VDC	1.0	N	tbd	7	2	6,000	3/8FPT x	3.75x2.81x5.13	1.2/0.5
								3/8OD	95x71x130	
PMLL150-12V DC	12 VDC	1.0	N	tbd	7	2	6,000	3/8FPT x	3.0x2.75x4.5	1.0/0.5
PMLL150-24V DC	24 VDC	0.5	N	tbd	7	2	6,000	1/2HB	76x70x114	1.0/0.5
P900-12V DC	12 VDC	3.8	N	1/25	6.5	3	12,000	1/2FPT x	4.5x3.5x9.0	4.5/2.0
P900-24V DC	24 VDC	1.9	N	1/25	6.5	3	12,000	1/2MPT	114x89x229	

See back of sheet for all notes.

Installation Guidelines for Seawater Pumps

When choosing the proper model **Seawater Pump**, primary consideration should be given to the BTU capacity of the condensing unit(s) and the available power supply.

All centrifugal pumps must be located as far below the water line, and as close to the center line as possible. This prevents exposure above the water line when the vessel is on the plane or operating in heavy seas. Install the pump as close as possible to the seawater strainer and thru-hull fitting. Mount the pump securely in a horizontal position with the discharge higher than the intake. Rotate pump head towards the direction of water flow as long as the outlet remains above the inlet. All of the above helps to prevent any air locks that can cause the pump to cease proper operation and cause damage to the components.

The entire seawater system should be plumbed on a continuous uphill incline from the thru-hull intake to the condenser coil inlet.

Locate the overboard discharge above the water line and connect it to the condenser coil outlet. The unit condenser coil should be the high point of the application, if possible, thus eliminating a place to trap air and maintaining a self-purging system.

The thru-hull fitting should have a clam shell type scoop, facing forward, to help maintain a constant water flow to the pump. The thru-hull fitting and seawater strainer must be sized considering both the required flow rate of the system and the pump inlet. Restriction of flow capacity to the

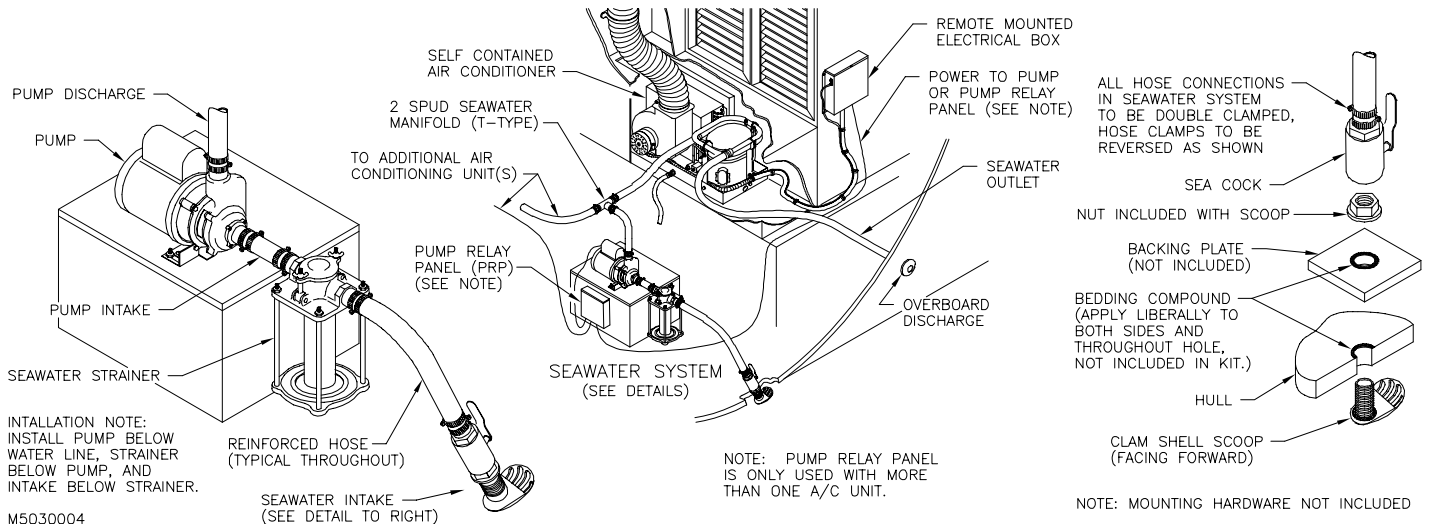
pump intake can result in damage to the pump components.

The thru-hull fitting should be dedicated to the system and not shared with other components or systems. The seawater strainer should be of adequate size and should be located in an accessible area for maintenance (cleaning).

A shut-off valve sea cock must be installed at the thru-hull fitting to provide a means to service any component below the water line.

All seawater components should be assembled using properly sized flexible reinforced hose to provide vibration isolation. All fittings must be full-flow fittings. Securely fasten each hose run, making sure no kinks or loops exist. Avoid or minimize 90° elbow fittings to ensure maximum water flow. All hose connections must be double-clamped, reversing the clamps, above the water line as well as below it.

When installing multiple units, a single pump is recommended. Size the pump to the equivalent foot of head and the total BTU load of all units combined. The discharge of the pump is to be connected to a spud manifold for proper distribution of water flow to each individual unit. This manifold should be at least 18"-24" above the pump outlet. For independent control of the seawater pump from each unit, use a pump relay panel (PRP).



Note: Contact the Dometic Corporation - Environmental Systems' Applications department for AC pumps larger than P711.

- (1) Electrical and mechanical specifications for 50-60Hz pumps are rated at 60Hz. Operating a 50-60Hz pump at 50Hz will reduce the pump head by 30% and the GPM by 17%. Do not operate 60hz only pumps at 50Hz.
- (2) Ignition protected.
- (3) Head calculation required for system is dependent on number and size of unit(s), length of hose, use of 90° elbows and the height of the unit(s) above the pump. Please refer to the Marine Air Systems' pump sizing guide or consult the Applications department.
- (4) GPM flow is rated at indicated pump head.
- (5) Capacities given are determined using an average of 3 GPM per ton (12,000 BTU/Hr) at given GPM and head, and are rated for direct expansion (DX) AC systems only.

In the interest of product improvement, specifications and design as outlined herein are subject to change without prior notice.

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