

AIR CONDITIONING AND REFRIGERATION

CONTENTS

PUMPING PRINCIPLES

ENGINE COOLING

ENGINEERING TABLES

TROUBLE-SHOOTING GUIDE

INDEX

HOME

NEXT

BACK

FLOODED SUCTION VS. SELF-PRIMING PUMPS

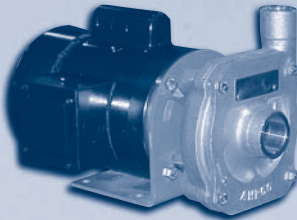


Flooded suction centrifugal pumps are the most common and efficient supply pumps for air conditioning and refrigeration systems. Though flooded suction pumps will "lift" liquid into the pump, they require check valves to maintain "prime" when installed above the water level and must have their seacock located in an area of the hull that will not allow air to enter. Self-priming centrifugal pumps are able to



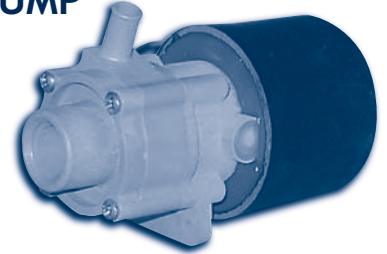
pass air and re-prime up to 20 feet (depending on the model) allowing them to be mounted high and dry. This ability enables self-priming pumps to repeatedly purge an airlock from the suction line in vessels where high speed, hull design, or seacock placement allows air to occasionally enter the thru-hull.

HIGH QUALITY NICKEL ALUMINUM BRONZE



These nickel aluminum bronze pumps by AMPCO resist erosion, electrolysis and cavitation damage. They are the "Cadillac" of marine air conditioning pumps and are available in a large array of sizes to fit your specific requirements (see page 7 and 74).

BRUSHLESS DC REFRIGERATION PUMP



The brushes commonly used in small DC pumps severely limit their life. The March 893-09 (12vdc) and 893-10 (24vdc) utilize a brushless motor that delivers up to 50,000 hours of trouble free operation.

Higher flow DC refrigeration pumps are available with replaceable brushes (March 809 series). See page 10 for details on the 893 and 809 series refrigeration pumps.

MARINE AIR CONDITIONER REFRIGERATION PUMP CROSS-REFERENCE

Here is an extensive cross-reference to assist you in identifying the replacement pump you require. This list provides information on Marine Air, Cruisair, Aqua-Air, Adler-Barbour, Grunert, Lunair and Technicold. Call us for assistance in identifying any models not shown.

MANUFACTURER / PUMP BRAND AND MODEL CROSS-REFERENCE

(Call for assistance in identifying any models not shown)

Manufacturer	Part#	Brand	Pump Model	Page	Manufacturer	Part#	Brand	Pump Model	Page
Adler-Barbour	D8150	March	LC-2CP-MD	6	Grunert	P900	March	809BRC-HS-12	10
Adler-Barbour	D8152	March	LC-3CP-MD	6	Lunair	WPC250	March	LC-2CP-MD	6
Adler-Barbour	E1390	March	893-04	10	Lunair	WPC500	March	LC-3CP-MD	6
Aqua-Air	AQPM-02	March	LC-2CP-MD	6	Lunair	WPC1000	March	AC-5C-MD	6
Aqua-Air	AQPM-05	March	LC-3CP-MD	6	Marine Air	P400/PML250	March	LC-2CP-MD	6
Aqua-Air	AQPM-10	March	AC-5C-MD	6	Marine Air	P500/PML500	March	LC-3CP-MD	6
Aqua-Air	AQPM-15	Oberdorfer	104M-F13	7	Marine Air	P300/PMA1000	March	AC-5C-MD	6
Aqua-Air	AQPM-30	Oberdorfer	109MB-J19	7	Marine Air	P800	March	893-04-1/2	10
Cruisair	PM250	March	LC-2CP-MD	6	Marine Air	P900	March	809BRC-HS-12	10
Cruisair	PM500	March	LC-3CP-MD	6	Marine Air	P510/PMA500	Little Giant	3MD-SC	9
Cruisair	PM1000	March	AC-5C-MD	6	Marine Air	P310	Little Giant	5MD-SC	9
Cruisair	P950B	Oberdorfer	172B-B26	7	Marine Air	PC400/PDA250	Cal.	MS 320B	9
Cruisair	PM1500BX	Oberdorfer	104M-F13	7	Marine Air	PC500/PDA500	Cal.	MS 580B	9
Cruisair	P1500BXT	Oberdorfer	104M-10F36BJ-50/60	7	Marine Air	P100	Scot	67-2.5	9
Cruisair	PM3000BX	Oberdorfer	109MB-J19	7	Marine Air	P120	Scot	67-3.00	9
Cruisair	P3000BXT	Oberdorfer	109MB-10J36BJ-50/60	7	Marine Air	P700	Scot	67	9
Cruisair	PDS250	Cal.	MS 320	9	Marine Air	P710	Scot	78-3/4.41	9
Cruisair	PDS400	Cal.	MS 430B	9	Marine Air	P711	Scot	78-10/4.75	9
Cruisair	PDS500	Cal.	MS 580B	9	Technicold	TE-250	March	LC-2CP-MD	6
Cruisair	PDS900	Cal.	MS 900B	9	Technicold	TE-500	March	LC-3CP-MD	6
Grunert	P800	March	893-04-1/2	10	Technicold	TE-1000	March	AC-5C-MD	6
					Technicold	TE-27	March	893-04	10