



MARCH PUMPS

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821

HOT WATER PUMPS

DESCRIPTION & OPERATION: The March 821 Series hot water booster units are centrifugal magnetic drive pumps that are built to handle liquid transfer in heating and cooling operations. Contact the factory for application assistance. Pumps are not self-priming, lack a suction lift, and thus require a flooded suction. Pumps cannot be run dry.

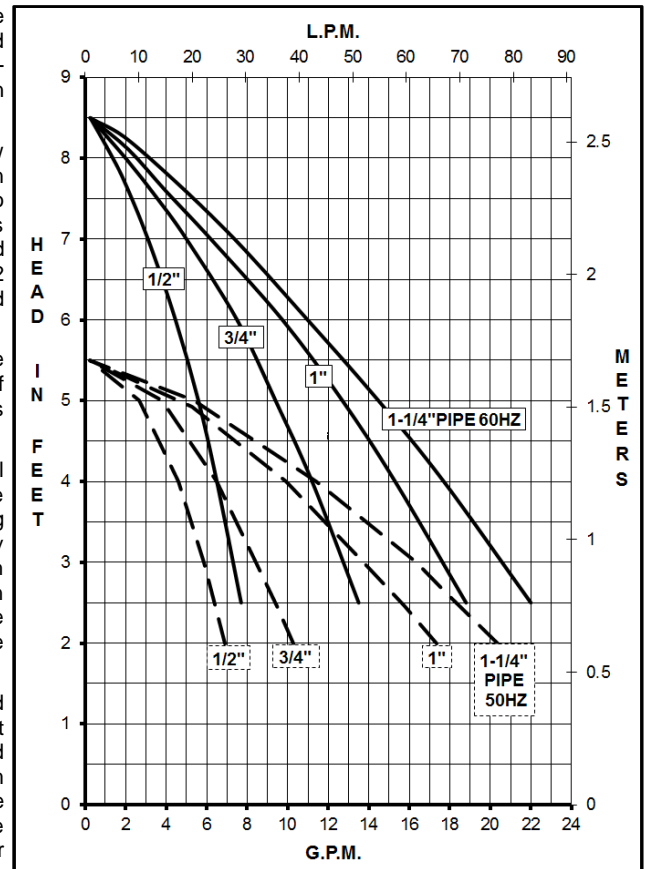
INSTALLATIONS: The pumps should be installed with the pump housing arrow pointing in the direction of flow within the system. If the arrow indicating flow is not in the direction required, remove the socket head housing screws holding the housing to the motor bracket and rotate the housing assembly as required. Replace the screws and tighten. The pump is composed of a wet end assembly, which can be separated by unscrewing the socket head housing screws. The pump will then separate into 2 parts. The liquid will be contained within the wet end assembly unless the flat head connecting screws on the rear housing are loosened.

LUBRICATION: The 821 motor should be oiled at least once a year at the start of the heating season with 4 or 5 drops of SAE 20 weight non-detergent oil in each bearing. If the pump is used daily, it should be oiled every six months. Do not over oil. No oiling is required on ball bearing motors.

GENERAL SAFETY INFORMATION: Follow all local safety codes & the Occupational Safety and Health Act (OSHA). Make certain that the power source conforms to the requirements of your equipment. Always disconnect power source before performing any work on or near the electric motor. Caution must be exercised to relieve any pressure in the system & in draining hot liquid from the pump or the system. March cannot recommend the 821 Series out of bronze where the liquid is used for human consumption per California Law due to the presence of lead. 821 pumps are recognized under the component program of Underwriters Laboratories Inc. File E80954. UL Recognition on 821 pumps, file E80954, is for water only.

DISASSEMBLY & REASSEMBLY: The motor can be removed from the wet end assembly without draining the liquid from the system. To do so remove four socket head housing screws and slide the motor assembly away. If parts inside the wet end assembly must be removed, isolate the pump or drain the system. When the system is drained and cool, remove the four flat head connecting screws from the rear of the housing. The rear housing can now be removed. Remaining pump parts can be removed. Replace any worn or damaged parts. Replace the gasket anytime the rear housing is removed.

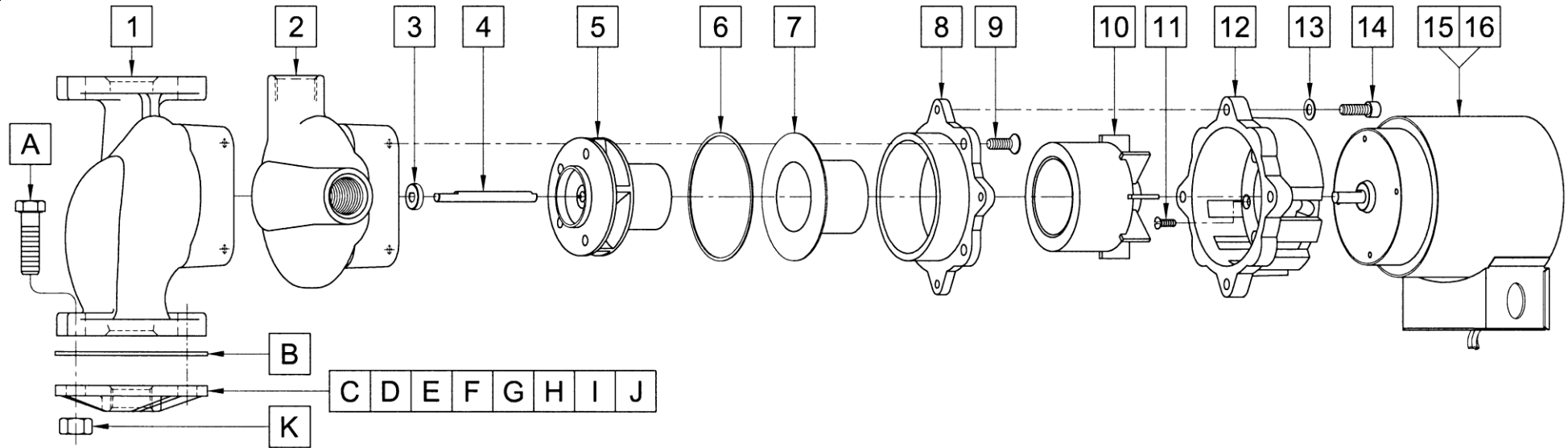
ELECTRICAL: Motors are air cooled and have a conduit box for electrical connections.



Model Abbreviations		BR: Bronze, CI: Cast Iron				BR: Bronze, CI: Cast Iron, T: Threaded											
SPECIFICATIONS																	
		821-BR		821-CI		821-BR-T				821-CI-T							
Product #	115 V	0821-0084-0500		0821-0084-0100		0821-0084-0700				0821-0084-0200							
	230 V	0821-0084-0600		0821-0084-0300		0821-0084-0800				0821-0084-0400							
UNITS		60 Hz		50 Hz		60 Hz		50 Hz		60 Hz		50 Hz		60 Hz		50 Hz	
Max Flow		22 gpm		75.7 lpm		22 gpm		75.7 lpm		14 gpm		45.4 lpm		14 gpm		45.4 lpm	
Max Head		8.5 ft / 3.7 psi		1.6 m		8.5 ft / 3.7 psi		1.6 m		8.5 ft / 3.7 psi		1.6 m		8.5 ft / 3.7 psi		1.6 m	
Inlet - Outlet		Flange - Flange				Flange - Flange				3/4" FPT - 3/4" FPT				3/4" FPT - 3/4" FPT			
Max Internal Pressure		150 psi / 1034 kPa				150 psi / 1034 kPa				150 psi / 1034 kPa				150 psi / 1034 kPa			
Liquid Temperature		250 °F / 121 °C Max				250 °F / 121 °C Max				250 °F / 121 °C Max				250 °F / 121 °C Max			
Packed Weight		14.5 lbs / 6.5 kg		14 lbs / 6.3 kg		12 lbs / 5.4 kg				11.5 lbs / 5.2 kg							
ELECTRICAL 60 Hz		W	A	Hp	Rpm	W	A	Hp	Rpm	W	A	Hp	Rpm	W	A	Hp	Rpm
115 V		113	1.6	1/20	1600	113	1.6	1/20	1600	101	1.6	1/20	1600	101	1.6	1/20	1600
230 V		113	0.8	1/20	1600	113	0.8	1/20	1600	101	0.8	1/20	1600	101	0.8	1/20	1600
ELECTRICAL 50 Hz		W	A	kW	Rpm	W	A	kW	Rpm	W	A	kW	Rpm	W	A	kW	Rpm
115 V		108	1.8	0.037	1350	108	1.8	0.037	1350	102	1.8	0.037	1350	102	1.8	0.037	1350
230 V		108	0.9	0.037	1350	108	0.9	0.037	1350	102	0.9	0.037	1350	102	0.9	0.037	1350
OVERALL SIZE		Height	Width	Length	Height	Width	Length	Height	Width	Length	Height	Width	Length	Height	Width	Length	
		6.31"	4.87"	9.68"	6.31"	4.87"	9.68"	6.19"	5.37"	9.28"	6.19"	5.37"	9.28"	6.19"	5.37"	9.28"	
		16.0 cm	12.3 cm	24.5 cm	16.0 cm	12.3 cm	24.5 cm	15.7 cm	13.6 cm	23.5 cm	15.7 cm	13.6 cm	23.5 cm	15.7 cm	13.6 cm	23.5 cm	

All specifications & data are based on pumping water & are intended as a guideline only. Specifications may vary with different motors.

PARTS LIST



#	DESCRIPTION	MATERIAL	SIZE (Inches)	QTY.	PART #	ONLY USED ON	#	DESCRIPTION	MATERIAL	SIZE (Inches)	QTY.	PART #
1	Pump Housing	Bronze	Flanged	1	0821-0064-0000	821 BR	8	Housing Connecting Ring	Aluminum		1	0821-0044-0001
1	Pump Housing	Cast Iron	Flanged	1	0821-0025-0001	821 CI	9	Flat Head Connecting Screw	Steel	1/4-20 x 3/4 Lg.	4	1043-0009-1000
2	Pump Housing	Bronze	3/4 Threaded	1	0821-0075-0000	821 BR-T	10	Drive Magnet			1	0821-0086-0100
2	Pump Housing	Cast Iron	3/4 Threaded	1	0821-0080-0001	821 CI-T	11	Screw Flat Head	Stainless	#8-32 x 1/2 Lg.	4	0210-0028-1000
3	Thrust Washer	Ceramic		1	0821-0079-1000		12	Motor Bracket	Plastic		1	0821-0104-1000
4	Shaft	Stainless		1	0821-0036-1000		13	Washer	Stainless	1/2 O.D.	4	0155-0021-1000
5	Impeller w/Bushing	Ryton/Carbon	2.875 Dia.	1	0821-0023-0200		14	Socket Head Housing Screw	Steel	1/4-20 x 3/4 Lg.	4	0804-0052-1000
6	Gasket	Nitrile/Fibre	2.968 ID x 0.031 Thick	1	0804-0050-1000		15	Motor, 115 V, 50/60 Hz			1	0821-0084-1000
7	Rear Housing	Stainless		1	0821-0035-0100		16	Motor, 230 V, 50/60 Hz			1	0821-0088-1000

OPTION PARTS FOR ALL MODELS

#	DESCRIPTION	MATERIAL	SIZE (Inches)	QTY.	PART #	#	DESCRIPTION	MATERIAL	SIZE (Inches)	QTY.	PART #
A	Hex Head Screw	Steel	7/16-14 x 1-1/2 Lg.	4	0804-0054-1000	G	Flange	Bronze	1-1/4	2	0821-0072-0000
B	Gasket, Flange	EPDM		1	0821-0105-1000	H	Flange	Steel	1-1/4	2	0821-0048-0000
C	Flange	Bronze	3/4	2	0821-0069-0000	I	Flange	Bronze	1-1/2	2	0821-0066-0000
D	Flange	Steel	3/4	2	0804-0047-0000	J	Flange	Cast Iron	1-1/2	2	0821-0049-0000
E	Flange	Bronze	1	2	0821-0065-0000	K	Hex Nut	Steel	7/16-14	4	0804-0055-1000
F	Flange	Steel	1	2	0821-0045-0000						

NOTE: Contact Factory for other materials and/or parts not listed.

0821-0063-1000 R20

LIMITED WARRANTY: March pumps are guaranteed only against defects in workmanship or materials for a period of one year from date of manufacture pumping water. For the complete warranty and to register online go to www.marchpump.com/warranty-registration