



# 809 12 & 24 VDC HOT WATER PUMPS

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#### **DESCRIPTION:**

March 809 Series hot water booster centrifugal magnetic drive pumps are built to handle liquid transfer in heating and cooling operations. Contact the factory for application assistance.

### **INSTALLATION:**

Pumps are not self-priming, lack a suction lift, and thus require a flooded suction. Pumps cannot be run dry. The 809 Series 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 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 housing screws. The pump will then separate into 2 parts. The liquid will be contained within the wet end assembly unless the screws on the rear housing are loosened.

#### **GENERAL SAFETY INFORMATION:**

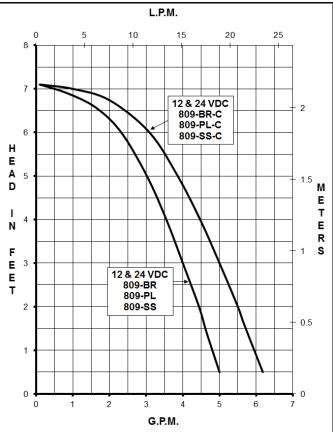
Follow all local electrical and safety codes, and the Occupational Safety and Health Act (OSHA). Make certain that the power source conforms to the requirements of your equipment. Always disconnect power source before performing any work on or near the electric motor. Caution must be exercised to relieve any pressure in the system and in draining hot water from the pump or the system. March cannot recommend the 809 Series out of bronze where the liquid is used for human consumption per California Law due to the presence of lead.

## DISASSEMBLY & REASSEMBLY:

The motor can be removed from the wet end assembly without draining the liquid from the system. To do so remove four 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 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 "O" ring anytime the rear housing is removed.

#### **ELECTRICAL:**

Motor type is brush DC in 12 Volt or 24 Volt. The red lead is positive & the black lead is negative.



SPECIFICATIONS																				
MODELS	80	9-BR		809-	SS	809-PL				809-BR-C 809-SS-C			809-PL-C							
Product # 12 V 24 V					09-0215-01000809-0100-080009-0215-02000809-0100-0900				0809-0065-05000809-0215-18000809-0065-07000809-0215-1700			0809-0190-0100 0809-0190-0200								
	BR: Bronze SS:			SS: Sta	Р	PL: Polysulfone Plastic			BR: Bronze SS: Stainless		PL: Polysulfone Plastic									
Model Abbreviations	Inline Inlet Inlin			Inline	ne Inlet Inlir			nline Inle	let C: Center			Inlet C: Center Inlet			C: Center Inlet					
Max Flow	5 gpm - 18.9 lpm			5 gpm - 18.9 lpm				6 gpm - 22.7 lpm				6 gpm - 22.7 lpm								
Max Head	7.1 ft / 3.07 psi - 2.1 m			7.1 ft / 3.07 psi - 2.1 m				7.1 ft / 3.07 psi - 2.1 m					7.1 ft / 3.07 psi - 2.1 m							
Inlet	-			1/2" MPT				3/4" MPT				3/8" FPT & 3/4" MPT								
Outlet	-			1/2" MPT				1/2" MPT						1/2" MPT						
Max Internal Pressure	150 psi / 1034 kPa			50 psi / 344 kPa				150 psi / 1034 kPa				50 psi / 344 kPa								
Max Liquid Temperature							250 °F / 121 °C				250 °F / 121 °C				250 °F / 121 °C					
Packed Weight		5.05		2.29 kg		4.20 lbs / 1.90 kg				5.5 lbs / 2.5kg				4.5 lbs / 2 kg						
ELECTRICAL	W	Α	Нр			W	Α	Нр		om		Α	Нр		W Rpm	W	Α			Rpm
12 Volt DC		1.1		0 0.007		13	1.1		0.007 18			1.1			007 1850	13	1.1	.,		
24 Volt DC				0 0.007		13			0.007 18		13				007 1850	13	· .	5 1/100 0		
Overall Pump Size			Widt		ength	Heig		Width	Leng		Heig		Wid		Length	Heig		Width	_	ngth
Inches	4.8	0.00		-	4.88 3.38		6.96		4.69		4.5			4.56 4.50			.84			
-	cm 12.3 8.4 17.7 12.3 8.5 17.7 11.9 11.4 21.2 11.5 11.4 19.9										9.9									
All specifications & data are based on pumping water & are intended as a guideline only. Specifications may vary with different motors.																				
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																				

			PARTS LIST						
#	DESCRIPTION	MATERIAL	SIZE (Inches)	QTY.	809-BR	809-PL	809-SS		
1	Screw (Housing)	Steel	#8-32 x 1 Lg.	4	0923-00	03-1000			
<u> </u>	Screw (Housing)	Stainless	#8-32 x 1 Lg.	4			0809-0205-1000		
_	Pump Housing	Bronze	Inline Inlet & Outlet	1	0809-0013-0000				
2	Pump Housing	Polysulfone	Inline Inlet & Outlet	1		0809-0079-0100			
	Pump Housing	Stainless	Inline Inlet & Outlet	1			0809-0211-0010		
3	"O" Ring	Silicone	0.070 CS x 2.441 ID	1	0809-0165-1000		0809-0165-1000		
4	"O" Ring	Silicone	1/16 CS x 2-3/8 ID	1		0809-0027-1000			
5	Thrust Washer	Teflon		1		0809-0043-1000			
6	*Shaft	Stainless	"D" Flat	1		0809-0161-1000			
7	*Shaft	Stainless	Left-Hand Thread	1	0809-0214-1000		0809-0214-1000		
8	Impeller	Ryton/Teflon/Glass	2 Dia.	1		0809-0005-0100			
	Rear Housing	Stainless		1		0809-0012-1000			
10	Screw (Rear Housing)	Stainless	#8-32 x 3/8 Lg.	4		0135-0040-1000			
11	Drive Magnet		0.250 Bore	1		0125-0083-0100			
	Drive Magnet (24V Only)		0.312 Bore	1		0809-0117-0100			
12	Screw	Stainless	#8-32 x 1/2 Lg.	4		0150-0015-1000			
13	Washer	Stainless	#8	4	0858-0004-1000				
14	Motor Bracket	Plastic		1	0809-0058-1000				
15	Motor (12VDC Brush)	1850 RPM		1	0809-0100-1000				
16	Motor (24VDC Brush)	1850 RPM - Irreplaceable Brushes		1		0809-0102-1300			

#	DESCRIPTION	MATERIAL	SIZE (Inches)	QTY.	809-BR-C	809-PL-C	809-SS-C			
Δ	Screw (Housing)	Steel	#8-32 x 1 Lg.	4	0923-00	03-1000				
~	Screw (Housing)	Stainless	#8-32 x 1 Lg.	4			0809-0205-1000			
	Pump Housing	Bronze	Center Inlet	1	0809-0142-0000					
в	Pump Housing	Polysulfone	Center Inlet	1		0809-0179-0100				
	Pump Housing	Stainless	Center Inlet	1			0809-0150-0010			
С	Hex Nut	Stainless	#8-32	4			0991-0004-1000			
D	"O" Ring	Silicone	0.070 CS x 2.441 ID	1	0809-0165-1000		0809-0165-1000			
Е	"O" Ring	Silicone	1/16 CS x 2-3/8 ID	1		0809-0027-1000				
F	Thrust Washer	Teflon		1		0809-0043-1000	-			
G	*Shaft	Stainless	"D" Flat	1		0809-0161-1000				
Н	*Shaft	Stainless	Left-Hand Thread	1	0809-0214-1000		0809-0214-1000			
Ι	Impeller	Ryton/Teflon/Glass	2 Dia.	1		0809-0005-0100				
J	Rear Housing	Stainless		1		0809-0012-1000				
Κ	Screw (Rear Housing)	Stainless	#8-32 x 3/8 Lg.	4	0135-00					
	Drive Magnet		0.250 Bore	1		0125-0083-0100				
L	Drive Magnet (24V Only)		0.312 Bore	1		0809-0117-0100	-			
Μ	Screw	Stainless	#8-32 x 1 Lg.	4			0809-0205-1000			
Ν	Screw	Stainless	#8-32 x 3/4 Lg.	4		0210-0036-1000				
0	Lock Washer	Stainless	#8	4		0620-0010-1000				
Ρ	Motor Bracket	Plastic		1		0809-0058-1000				
Q	Base	Plastic		1		0125-0106-1000				
R	Motor (12VDC Brush)	1850 RPM		1		0809-0100-1000				
S	Motor (24VDC Brush)	1850 RPM - Irreplaceable Brushes		1		0809-0102-1300				
NOTE: Contact Factory for other materials and/or parts not listed. 0809-0053-1300 R6 *Check shaft type before ordering replacement parts										

\*Check shaft type before ordering replacement parts.