

AquaMotion®

Best Wet Rotor Pump Design
Pure and Simple



U.S. DESIGN - U.S. BUILT - 2 PATENTS

Revolutionary Green ECO-Cartridge™ Design provides Better Efficiency and Sustainability and lowest Ownership Cost for the Buyer
Pumps designed by the Inventor of the Cartridge Type Circulator

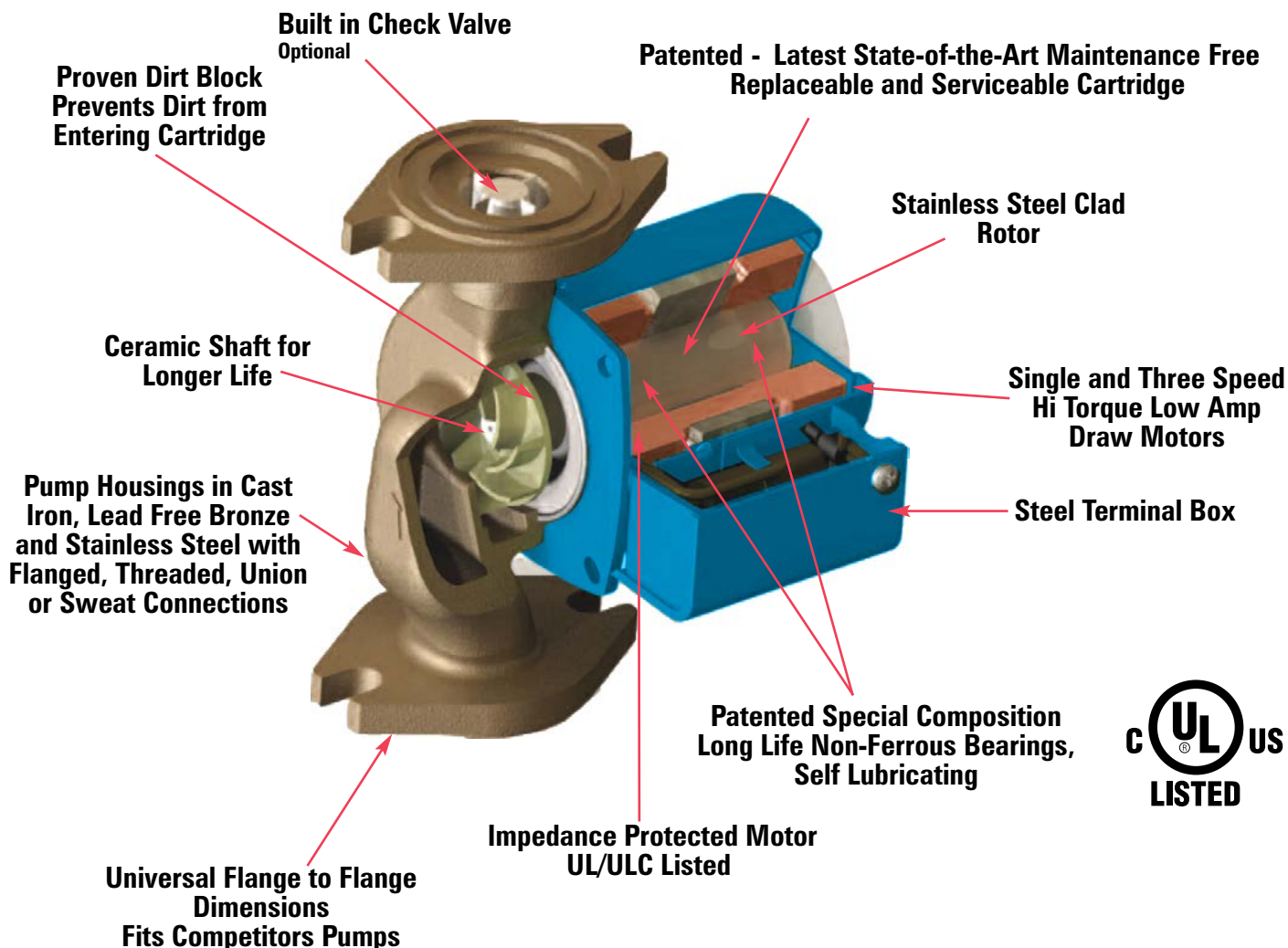
History

The Aquamotion™, revolutionary Green ECO-Cartridge™ Circulator product line was designed, developed and life tested by the inventor of the cartridge type circulator. This also includes his hollow shaft and dirt block inventions. This product line incorporates a lifetime of know-how in design, engineering, application and field experience. His designs of quality pumps as Senior Vice President of Engineering at the market leader for 30 years started with the introduction of the wet motor circulator in North America in 1955. Millions of his designs are in operation worldwide. He is now the Director of Engineering at AquaMotion Inc. The President of AquaMotion, was formerly VP of Manufacturing and Senior Vice President of the market leader for 21 years. He founded Sparco Inc. in 1983, a market leader in mixing valves, hydronic valves and radiant components. Our combined industry experience created this unique product line.

Features

The revolutionary Green ECO-Cartridge™ Design is the heart of the circulator and contains all moving parts. It has the only field replaceable and field serviceable cartridge on the market. In case of failure, competitive manufacturers have to replace their entire cartridge, motor assembly or pump, increasing the foot print on the environment and doubling the cost to the consumer. With our pump, pull out the rotor assembly, flush the cartridge with water and reinstall it. Simple, cost effective, patented.

- Easiest to install and service
- We cover the Performance Range with the fewest number of parts
- Super quiet operation, compact size, self venting
- Optional BICV™ Built-In Check Valve prevents thermo siphoning and back flow
- Maintenance free and field serviceable cartridge
- The same stainless cartridge is used for iron, bronze and stainless pumps to reduce inventory
- Pumps, motor assemblies and cartridge fit competitor's models
- High starting torque motors and efficient pump design save energy cost
- 3 speed pumps with 4 bolt flanges reduce inventory by 50% and increase service factor
- UL and ULC for Canada listed
- Compliance with California and Vermont standards for lead free bronze
- Industry leading three year warranty
- Rugged single and three speed models with low Amp draw
- Our CT07 replacement cartridge fits 95% of all Taco* 007 pumps



AQUAMOTION PRODUCT LIST

5/13/13

Product No.	Description	Impeller Diameter	Connections	Material	Check Valve	Speed	Performance Range Ft X GPM*	Ampere
AM2-RC1	Pump	1.65	3/4" NPT	St. Steel	---	1	8 X 4	0.25
AM3-BE1	Pump	1.2	3/4" Sweat	Bronze	---	1	4 X 7	0.46
AM3-BC1	Pump	1.2	1/2" Sweat	Bronze	---	1	4 X 6	0.46
AM3-ST1	Pump	1.2	3/4" NPT	St. Steel	---	1	4 X 7	0.46
AM3-SUEV1	Pump	1.2	Union, 3/4" Sweat	St. Steel	20 mm	1	4 X 6	0.46
AM3-SUCV1	Pump	1.2	Union, 1/2" Sweat	St. Steel	20 mm	1	4 X 5	0.46
AM5-F1	Pump	1.6	Flange, 2 Bolt	Cast Iron	---	1	9 X 18	0.54
AM5-FV1	Pump	1.6	Flange, 2 Bolt	Cast Iron	25 mm	1	9 X 16	0.54
AM5-BF1	Pump	1.6	Flange, 2 Bolt	Bronze	---	1	9 X 18	0.54
AM5-BFV1	Pump	1.6	Flange, 2 Bolt	Bronze	25 mm	1	9 X 16	0.54
AM5-SF1	Pump	1.6	Flange, 2 Bolt	St. Steel	---	1	9 X 18	0.54
AM5-SFV1	Pump	1.6	Flange, 2 Bolt	St. Steel	25 mm	1	9 X 16	0.54
AM6-BE1	Pump	1.6	3/4" Sweat	Bronze	---	1	8 X 11	0.54
AM6-BC1	Pump	1.6	1/2" Sweat	Bronze	---	1	9 X 9	0.54
AM6-ST1	Pump	1.6	3/4" NPT	St. Steel	---	1	8 X 11	0.54
AM6-SUEV1	Pump	1.6	Union, 3/4" Sweat	St. Steel	20 mm	1	8 X 10	0.54
AM6-SUCV1	Pump	1.6	Union, 1/2" Sweat	St. Steel	20 MM	1	8 X 8	0.54
AM7-F1	Pump	1.75	Flange, 2 Bolt	Cast Iron	---	1	11 X 20	0.6
AM7-FV1	Pump	1.75	Flange, 2 Bolt	Cast Iron	25 mm	1	11 X 17	0.6
AM7-BF1	Pump	1.75	Flange, 2 Bolt	Bronze	---	1	11 X 20	0.6
AM7-BFV1	Pump	1.75	Flange, 2 Bolt	Bronze	25 mm	1	11 X 17	0.6
AM7-SF1	Pump	1.75	Flange, 2 Bolt	St. Steel	---	1	11 X 20	0.6
AM7-SFV1	Pump	1.75	Flange, 2 Bolt	St. Steel	25 mm	1	11 X 17	0.6
AMR-3F1	Pump	2.45	Flange, 4 Bolt	Cast Iron	---	3	21 X 17	All AMR's:
AMR-3FV1	Pump	2.45	Flange, 4 Bolt	Cast Iron	25 mm	3	20 X 16	Hi 0.79
AMR-S3F1	Pump	2.45	Flange, 4 Bolt	St. Steel	---	3	21 X 17	Med 0.62
AMR-S3FV1	Pump	2.45	Flange, 4 Bolt	St. Steel	25 mm	3	20 X 16	Lo 0.46
AM10-3F1	Pump	1.9	Flange, 4 Bolt	Cast Iron	---	3	12 X 31	All AM10's:
AM10-3FV1	Pump	1.9	Flange, 4 Bolt	Cast Iron	32 mm	3	11 X 29	Hi 0.75
AM10-S3F1	Pump	1.9	Flange, 4 Bolt	St. Steel	---	3	12 X 31	Med 0.60
AM10-S3FV1	Pump	1.9	Flange, 4 Bolt	St. Steel	32 mm	3	11 X 29	Lo 0.45
FK75	Flange Kit	---	2 Bolt, 3/4" NPT	Cast Iron	---	---	---	---
FK75B	Flange Kit	---	2 Bolt, 3/4" NPT	Bronze	---	---	---	---
FK75S	Flange Kit	---	2 Bolt, 3/4" NPT	St. Steel	---	---	---	---
FK100	Flange Kit	---	2 Bolt, 1" NPT	Cast Iron	---	---	---	---
FK100B	Flange Kit	---	2 Bolt, 1" NPT	Bronze	---	---	---	---
FK100S	Flange Kit	---	2 Bolt, 1" NPT	St. Steel	---	---	---	---
FK125	Flange Kit	---	2 Bolt, 1 1/4" NPT	Cast Iron	---	---	---	---
FK125B	Flange Kit	---	2 Bolt, 1 1/4" NPT	Bronze	---	---	---	---
FK125S	Flange Kit	---	2 Bolt, 1 1/4" NPT	St. Steel	---	---	---	---
FK150	Flange Kit	---	2 Bolt, 1 1/2" NPT	Cast Iron	---	---	---	---
FK150B	Flange Kit	---	2 Bolt, 1 1/2" NPT	Bronze	---	---	---	---
FK150S	Flange Kit	---	2 Bolt, 1 1/2" NPT	St. Steel	---	---	---	---
UK50	Union Kit		1/2" Sweat					
UK75	Union Kit		3/4" Sweat					
CT03	Cartridge Kit	1.2	For AM3					
CT56	Cartridge Kit	1.6	For AM5 & AM6					
CT07	Cartridge Kit	1.75	For AM7					
CT10	Cartridge Kit	1.9	For AM10					
CTR	Cartridge Kit	2.46	For AMR					

*Feet at zero GPM X GPM at zero feet

Patented 3-Speed Technology Circulators

Model AMR 3-Speed Cartridge Circulator for Radiant Heating

Applications

AquaMotion designed the Model AMR, 3 Speed Cartridge Circulator for applications requiring high head such as Radiant Heating. The 3 speed design allows pump performance to be adjusted to more closely match system requirement

Our AMR circulator replaces Grundfos model UPS 15-58, Taco 00R, 0015 and Wilo STAR S21 and other models.

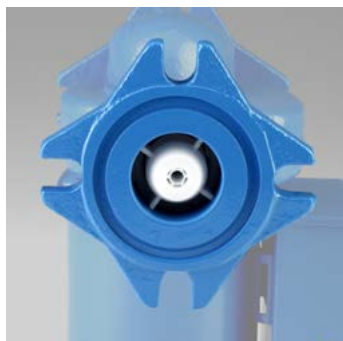
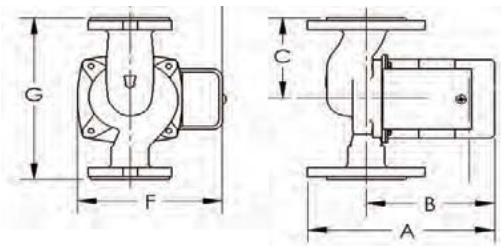
To reduce inventory and cost, we designed this circulator with a 4 bolt flange for mounting in-line or 90° rotated. AMR's are available with BICV, Built-In Check Valves, in Cast Iron and Stainless Steel.

Electrical Data

Model	Volts	Hz	Ph	Amps	HP	RMP
AMR	120	80	1	0.79	0.127	2800
Motor Type	Permanent Split Capacitor Impedance Protected					

Pump Dimensions & Weight

			A		B		C		D		F		G		Ship Wt.	
Model	Casing	Connection	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	Lbs.	Kg
AMR-3F1	Cast Iron	FLG, 4 Bolt	6-1/2	165	4-9/16	116	2-3/4	70	3-3/16	81	4-7/8	124	6-3/8	162	7.6	3.4
AMR-3FV1	Cast Iron	FLG, 4 Bolt	6-1/2	165	4-9/16	116	2-3/4	70	3-3/16	81	4-7/8	124	6-3/8	162	7.6	3.4
AMR-S3F1	Stainless Steel	FLG, 4 Bolt	6-1/2	165	4-9/16	116	2-3/4	70	3-3/16	81	4-7/8	124	6-3/8	162	7.6	3.4
AMR-S3FV1	Stainless Steel	FLG, 4 Bolt	6-1/2	165	4-9/16	116	2-3/4	70	3-3/16	81	4-7/8	124	6-3/8	162	7.6	3.4



4-Bolt Flange



3-Speed Switch



AMR-3FV1

Model Nomenclature

F - Cast Iron, Flanged
 BF - Bronze, Flanged
 FV - Cast Iron, Flanged with Check Valve
 BFV - Bronze, Flanged, with Check Valve
 1 - Serial Number

All Models equipped with Bronze rated cartridge

Performance Data

Flow Range: 0-17 GPM
 Head Range: 0-20.5 Feet
 Connection Sizes: 3/4", 1", 1-1/4", 1-1/2" Flanged

Patented 3-Speed Technology Circulators

Model AM10, 3-Speed Cartridge Circulator for Service Calls

Applications

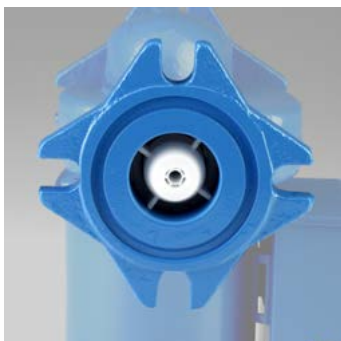
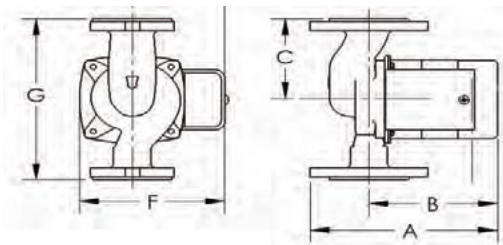
AquaMotion designed the rugged 3 speed AM10 Circulator to extend the range of the AquaMotion pump offering and as the Replacement Pump for all Service Calls. It has the performance rating to replace all circulators up to 26 GPM and uses 28% less power than Taco 0010* circulators, saving the customer a bundle every year. The 4 bolt flange for mounting in-line or 90° rotated makes the AM10 the Perfect Replacement Service Pump. BICV, Built-In Check Valves are optional. Circulators are available in Cast Iron and Stainless Steel.

Electrical Data

Model	Volts	Hz	Ph	Amps	HP	RPM
AM10	120	60	1	0.75	0.121	2800
Motor Type	Permanent Split Capacitor Impedance Protected					

Pump Dimensions & Weight

Model	Casing	Connection	A		B		C		D		F		G		Ship Wt.	
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	Lbs.	Kg
AM10-3F1	Cast Iron	FLG, 4 Bolt	6-11/16	170	4-3/4	121	2-3/4	70	3-3/16	81	4-7/8	124	6-3/8	162	7.9	3.6
AM10-3FV1	Cast Iron	FLG, 4 Bolt	6-11/16	170	4-3/4	121	2-3/4	70	3-3/16	81	4-7/8	124	6-3/8	162	7.9	3.6
AM10-S3F1	Stainless Steel	FLG, 4 Bolt	6-11/16	170	4-3/4	121	2-3/4	70	3-3/16	81	4-7/8	124	6-3/8	162	7.9	3.6
AM10-S3FV1	Stainless Steel	FLG, 4 Bolt	6-11/16	170	4-3/4	121	2-3/4	70	3-3/16	81	4-7/8	124	6-3/8	162	7.9	3.6



4-Bolt Flange



3-Speed Switch



AM10-3F1

Model Nomenclature

F - Cast Iron, Flanged
 BF - Bronze, Flanged
 FV - Cast Iron, Flanged with Check Valve
 BFV - Bronze, Flanged, with Check Valve
 1 - Serial Number

All Models equipped with Bronze rated cartridge

Performance Data

Flow Range: 0-31 GPM

Head Range: 0-11-1/2 Feet

Connection Sizes: 3/4", 1", 1-1/4", 1-1/2" Flanged

Patented Model AM7 Cartridge Circulator

Applications

AquaMotion designed the AM7, a super quiet, single stage, in-line, maintenance-free, wet motor circulator for Hydronic Heating Systems, Radiant Heating, Indirect Water Heating, Hydro-Air Fan Coils, Chilled Water Cooling and Domestic Water Systems. AM7's are made in Cast Iron and Bronze and Stainless Steel construction. **The AM7 covers most circulator applications. Our flat performance curve design assures quiet operation in heating systems and features lowest operating costs.**

Electrical Data

Model	Volts	Hz	Ph	Amps	HP	RMP
AM7	120	60	1	.60	0.096	2800
Motor Type	Permanent Split Capacitor Impedance Protected					

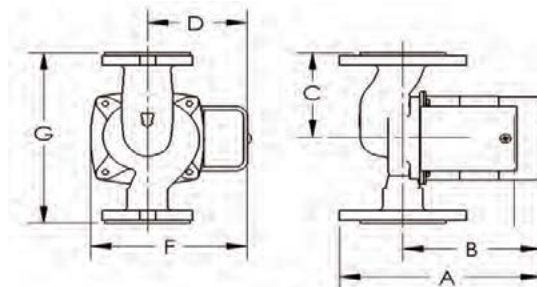
Model Nomenclature

F - Cast Iron, Flanged
 BF - Bronze, Flanged
 FV - Cast Iron, Flanged with Check Valve
 BFV - Bronze, Flanged, with Check Valve
 1 - Serial Number

All Models equipped with Bronze rated cartridge

Performance Data

Flow Range: 0-19 GPM
 Head Range: 0-11-1/2 Feet
 Connection Sizes: 3/4", 1", 1-1/4", 1-1/2" Flanged



Pump Dimensions & Weight

Model	Casing	Connection	A		B		C		D		F		G		Ship Wt.	
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	Lbs.	Kg
AM7-F1	Cast Iron	FLG, 2 Bolt	6-5/16	160	4-3/8	111	3-3/16	81	3-3/16	81	4-7/8	124	6-3/8	162	6.6	3.0
AM7-FV1	Cast Iron	FLG, 2 Bolt	6-1/8	156	4-3/16	106	3-3/16	81	2-15/16	75	4-5/8	117	6-3/8	162	6.6	3.0
AM7-BF1	Bronze	FLG, 2 Bolt	6-1/8	156	4-3/16	106	3-3/16	81	2-15/16	75	4-5/8	117	6-3/8	162	7.1	3.2
AM7-BFV1	Bronze	FLG, 2 Bolt	6-1/8	156	4-3/16	106	3-3/16	81	2-15/16	75	4-5/8	117	6-3/8	162	7.1	3.2
AM7-SF1	Stainless Steel	FLG, 2 Bolt	6-1/8	156	4-3/16	106	3-3/16	81	2-15/16	75	4-5/8	117	6-3/8	162	6.2	2.8
AM7-SFV1	Stainless Steel	FLG, 2 Bolt	6-1/8	156	4-3/16	106	3-3/16	81	2-15/16	75	4-5/8	117	6-3/8	162	6.2	2.8



AM7-SF1



AM7-F1

Patented Model AM2-RC1 Cartridge Circulator

Applications

AquaMotion designed this stainless steel pump specifically for use in conjunction with a special by-pass valve for re-circulation of domestic hot water when the cold water branch is used to complete a return loop.

Connections are 3/4 inch NPT. The pump is designed for very low power consumption and is equipped with a 10 foot cord for attaching to any standard 115 volt wall socket. To further reduce power consumption, it is recommended that a programmable timer be installed between socket and cord to limit pump operation to hours when hot water is most likely needed.

The pump is typically installed at the hot water generator and the by-pass valve near the most remote fixture.

Model Nomenclature

ST - Stainless Steel Threaded
1 - Serial Number

Performance Data

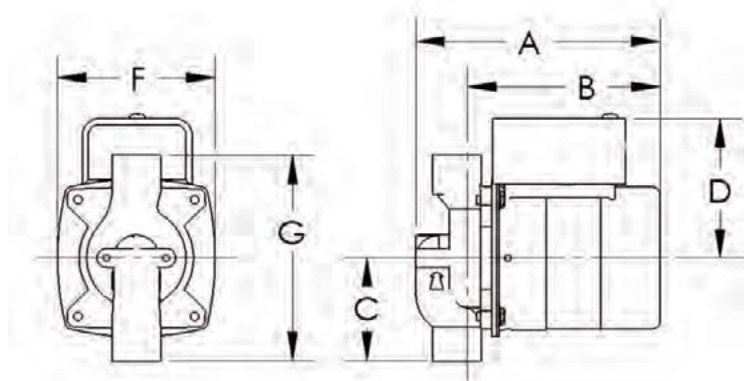
Flow Range: 0-5 GPM
Head Range: 0-9 Feet
Connection Sizes: 3/4" NPT

Electrical Data

Model	Volts	Hz	Ph	Amps	HP	RPM
AM2	120	60	1	0.25	0.04	2800
Motor Type	Permanent Split Capacitor Impedance Protected					

Pump Dimensions & Weight

Model	Casing	Connection	A		B		C		D		F		G		Ship Wt.	
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	Lbs.	Kg
AM2-RC1	Stainless Steel	3/4" NPT	5-1/2	140	4-5/8	117	2-3/8	60	3-3/16	81	3-3/8	86	5	127	5.1	2.3



AM2-RC1

Patented Model AM3 Cartridge Circulator

Applications

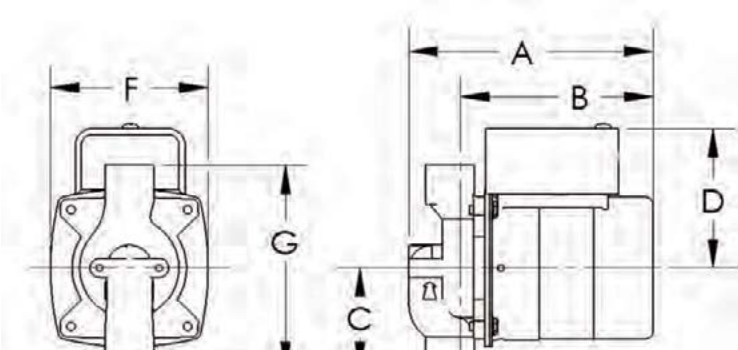
AquaMotion designed the bronze AM3 for circulating hot or chilled fresh water in open or closed loop low flow applications. Ideally suited for Domestic Hot Water Recirculation Systems, Heat Recovery Units, Potable Water Systems and Water Source Heat Pumps.

Electrical Data

Model	Volts	Hz	Ph	Amps	HP	RPM
AM3	120	60	1	0.46	0.074	2800
Motor Type	Permanent Split Capacitor Impedance Protected					

Pump Dimensions & Weight

Model	Casing	Connection	A		B		C		D		F		G		Ship Wt.	
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	m	Lbs.	Kg
AM3-BS1	Bronze	3/4" Sweat	5-1/2	140	4-5/8	117	2-1/4	57	3-3/16	81	3-3/8	86	4-1/2	11	4.6	2.1
AM3-BC1	Bronze	1/2" Sweat	5-5/8	143	4-7/16	113	2-1/8	54	3-3/16	81	3-3/8	86	4-1/4	10	4.5	2.0
AM3-ST1	Stainless Steel	3/4" NPT	5-1/2	140	4-5/8	117	2-3/8	60	3-3/16	81	3-3/8	86	5	12	4.8	2.2
AM3-SUEV1	Stainless Steel	3/4" Union Sweat	5-1/2	140	4-5/8	117	3-1/4	83	3-3/16	81	4-7/8	124	6-13/16	173	5.1	2.3
AM3-SUCV1	Stainless Steel	1/2" Union Sweat	5-1/2	140	4-5/8	117	3-1/4	83	3-3/16	81	4-7/8	124	6-13/16	173	5.1	2.3



BC Panel Mount



**AM3-SUEV1
Union with Check Valve**

Model Nomenclature

BS - Bronze, Sweat
BC - Bronze, Sweat, Panel Mount Tappings
BT - Bronze, Threaded
SU - Stainless, Union
ST - Stainless Steel
V - BICV (Built-In Check Valve)
1 - Serial Number

Performance Data

Flow Range: 0-7 GPM
Head Range: 0-4-1/2 Feet
Connection Sizes: 1/2" Swt, 3/4" Swt. 3/4" NPT, 1/2 and 3/4 Union Sweat

Patented Model AM5 Cartridge Circulator

Applications

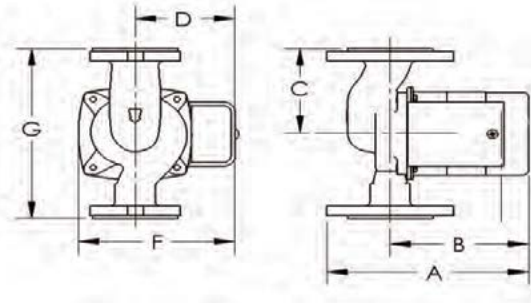
AquaMotion designed the **AM5**, a super quiet, single stage, in-line, maintenance-free, wet rotor circulator for Hydronic Heating Systems, Radiant Heating, Indirect Water Heating, Hydro-Air Fan Coils, Chilled Water Cooling and Domestic Water systems. AM5's are made in Cast Iron and Bronze and Stainless Steel construction.

Electrical Data

Model	Volts	Hz	Ph	Amps	HP	RPM
AM5	120	60	1	0.54	0.087	2800
Motor Type	Permanent Split Capacitor Impedance Protected					

Pump Dimensions & Weight

Model	Casing	Connection	A		B		C		D		F		G		Ship Wt.	
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	Lbs.	Kg
AM5-F1	Cast Iron	FLG, 2 Bolt	6-5/16	160	4-3/8	111	3-3/16	81	3-3/16	81	4-7/8	124	6-3/8	162	6.6	3.0
AM5-FV1	Cast Iron	FLG, 2 Bolt	6-1/8	156	4-3/16	106	3-3/16	81	2-15/16	75	4-5/8	117	6-3/8	162	6.6	3.0
AM5-BF1	Bronze	FLG, 2 Bolt	6-1/8	156	4-3/16	106	3-3/16	81	2-15/16	75	4-5/8	117	6-3/8	162	7.1	3.2
AM5-BFV1	Bronze	FLG, 2 Bolt	6-1/8	156	4-3/16	106	3-3/16	81	2-15/16	75	4-5/8	117	6-3/8	162	7.1	3.2
AM5-SF1	Stainless Steels	FLG, 2 Bolt	6-1/8	156	4-3/16	106	3-3/16	81	2-15/16	75	4-5/8	117	6-3/8	162	6.2	2.8
AM5-SFV1	Stainless Steel	FLG, 2 Bolt	6-1/8	156	4-3/16	106	3-3/16	81	2-15/16	75	4-5/8	117	6-3/8	162	6.2	2.8



Model Nomenclature

F - Cast Iron, Flanged
 BF - Bronze, Flanged
 FV - Cast Iron, Flanged with Built-In Check Valve
 BFV - Bronze, Flanged, with Built-In Check Valve
 1 - Serial Number

All Models equipped with Bronze rated cartridge

Performance Data

Flow Range: 0-18 GPM
 Head Range: 0-9-1/2 Feet
 Connection Sizes: 3/4", 1", 1-1/4", 1-1/2" Flanged



AM5-SFV1

Patented Model AM6 Cartridge Circulator

Applications

AquaMotion designed the bronze AM6 for circulating hot or chilled fresh water in open or closed loop, low flow applications. Ideally suited for Domestic Hot Water Recirculation Systems, Heat Recovery Units, Potable Water Systems and Water Source Heat Pumps.

Electrical Data

Model	Volts	Hz	Ph	Amps	HP	RPM
AM6	120	60	1	.54	0.087	2800
Motor Type	Permanent Split Capacitor Impedance Protected					

Model Nomenclature

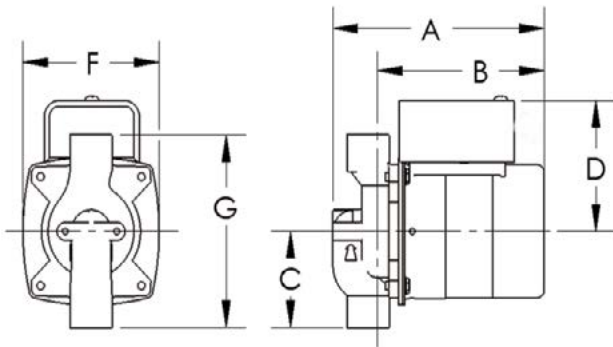
BS - Bronze, Sweat
BC - Bronze, Sweat, Panel Mount Tappings
BT - Bronze, Threaded
SU - Stainless, Union
ST - Stainless Steel
V - BICV (Built-In Check Valve)
1 - Serial Number

Performance Data

Flow Range: 0-17 GPM
Head Range: 0-21 Feet
Connection Sizes: 1/2" Swt, 3/4" Swt, 3/4" NPT, 1/2 and 3/4 Union Sweat

Pump Dimensions & Weight

Model	Casing	Connection	A		B		C		D		F		G		Ship Wt.	
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	Lbs.	Kg
AM6-BS1	Bronze	3/4" Sweat	5-1/2	140	4-5/8	117	2-1/4	57	3-3/16	81	3-3/8	86	4-1/2	114	4.6	2.1
AM6-BC1	Bronze	1/2" Sweat	5-5/8	143	4-7/16	113	2-1/8	54	3-3/16	81	3-3/8	86	4-1/4	108	4.5	2.0
AM6-ST1	Stainless Steel	3/4" NPT	5-1/2	140	4-5/8	117	2-3/8	60	3-3/16	81	3-3/8	86	5	127	4.8	2.2
AM6-SUEV1	Stainless Steel	3/4" Sweat	5-1/2	140	4-5/8	117	3-1/4	83	3-3/16	81	4-7/8	124	6-13/16	173	4.65.1	2.3
AM6-SUCV1	Stainless Steel	1/2" Sweat	5-1/2	140	4-5/8	117	3-1/4	83	3-3/16	81	4-7/8	124	6-13/16	173	4.65.1	2.3



AM6-SUEV1
Union with Check Valve



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