

## Plumb n' Plug® Cartridge Circulators

The 003, 005 and 006 Plumb n' Plug® Cartridge Circulators are designed to conserve water, increase comfort and reduce the delivery time of hot water to outlet fixtures by periodically re-circulating hot water through the system. An average residence can save up to 25 gallons of wasted water per day. Factory pre-wired 6 foot line cord with optional 24 hour analog or 7 day digital programmable clock timers allow for easy installation. Simply Plumb it in, then Plug it in. Plumb n' Plug circulators include all the standard 00® maintenance-free design features-no mechanical seal, self lubricating, replaceable cartridge, quiet, efficient operation and unmatched reliability. Available with Sweat, Threaded or Union connections and optional Integral Flow Check (IFC®).



# Submittal Data Information

## Model 003/005/006

### Plumb n' Plug® with Analog Timer



#### Features

- Factory Installed 6' Line Cord and 24 Hour/15 Minute Interval Analog Timer
- UL Listed
- Optional 95°F -115°F Aquastat Available
- Standard High Capacity Output
- Compact Design
- Quiet, Efficient Operation
- Direct Drive-Low Power Consumption
- Unique Replaceable Cartridge Design-Field Serviceable
- Self Lubricating
- No Mechanical Seal
- Unmatched Reliability-Maintenance Free
- Sweat Connections — Bronze
- Union & Threaded Connections — St. Steel
- Flanged — St. Steel

#### Materials of Construction

Casing (Volute):	Bronze or Stainless Steel
Stator Housing:	Steel
Cartridge:	Stainless Steel
Impeller:	Non-Metallic
Shaft:	Ceramic
Bearings:	Carbon
O-Ring & Gaskets:	EPDM
Integral Flow Check:	Body & Plunger, Acetal, Spring - S/S
O-ring:	EPDM

#### Model Nomenclature

- BC – Bronze, 1/2" Sweat
- B – Bronze, 3/4" Sweat
- ST – Stainless Steel, 3/4" FNPT
- SC – Stainless Steel, Union Connection
- PNP – Plumb n' Plug®
- SF – Stainless Steel, Flanged

#### Performance Data

- Maximum Flow: 7 GPM (003)  
19.5 GPM (005)  
11.5 GPM (006)
- Maximum Head: 4.5 Feet (003)  
8.5 Feet (005)  
9.5 Feet (006)
- Minimum Fluid Temperature: 40°F (4°C)
- Maximum Fluid Temperature: 220°F (104°C)
- Maximum Working Pressure: 125 psi



FOR INDOOR USE ONLY

#### Application

The Taco 003, 005 & 006 Plumb n' Plug® (PNP) periodically re-circulates hot water through the domestic piping system to decrease the delivery time to outlet fixtures and reduce wasted water. Typical timer programming will cycle the Plumb n' Plug during high peak usage periods such as early morning or early evening. An optional aquastat is available for constant circulation applications to maintain temperature between 95°F and 115°F. The Taco 003 PNP is ideal for recirculation loops. Its design operating condition of 3 gpm at 3 feet of head helps to reduce erosion corrosion and noise in system piping. Use the 003 PNP for systems up to 200 total feet (supply and return) of 3/4" pipe. The Taco 005 & 006 PNP's are designed for systems using 200-400 feet of 3/4" pipe. Installation of isolation valves, pipe insulation and flow checks are recommended.

#### Pump Dimensions & Weights

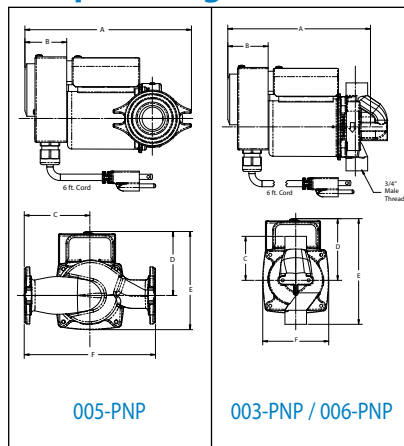
##### Analog Timer

Model	Connection	A		B		C		D		E		F		Ship Wt.	
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	Kg
003-BC4-PNP	1/2" Sweat	7-1/4	184	1-15/16	49	2-1/8	54	3-1/16	78.0	5-1/4	134	3-5/16	84	7.0	3.2
003-B4-PNP	3/4" Sweat	7-1/4	184	1-15/16	49	2-3/16	56	3-1/16	78.0	5-1/4	134	3-5/16	84	7.0	3.2
003-ST4-PNP	3/4" FNPT	7-1/4	184	1-15/16	49	2	51	3-1/16	78.0	5-1/4	134	3-5/16	84	7.0	3.2
003-SC4-1PNP	Union	7-1/4	184	1-15/16	49	2-31/32	76	3-1/16	78.0	6	152	3-5/16	84	7.0	3.2
005-SF2-PNP	SS Flanged	8-1/8	205	1-15/16	49	3-5/32	80	3-3/32	78.4	4-3/4	121	6-3/8	162	7.0	3.2
006-BC4-PNP	1/2" Sweat	7-1/4	184	1-15/16	49	2-1/8	54	3-1/16	78.0	5-1/4	134	3-5/16	84	7.0	3.2
006-B4-PNP	3/4" Sweat	7-1/4	184	1-15/16	49	2-3/16	56	3-1/16	78.0	5-1/4	134	3-5/16	84	7.0	3.2
006-ST4-PNP	3/4" FNPT	7-1/4	184	1-15/16	49	2	51	3-1/16	78.0	5-1/4	134	3-5/16	84	7.0	3.2
006-SC4-1PNP	Union	7-1/4	184	1-15/16	49	2-31/32	76	3-1/16	78.0	6	152	3-5/16	84	7.0	3.2

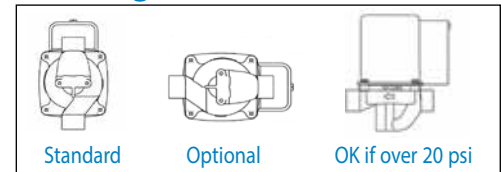
##### Analog Timer with Integral Flow Check (IFC®)

Model	Connection	A		B		C		D		E		F		Ship Wt.	
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	Kg
003-BC4-3PNP	1/2" Sweat	8-1/8	205	1-15/16	49	2-3/16	56	3-1/16	78	5-1/4	134	3-5/16	84	7.0	3.2
003-BC4-2PNP	3/4" Sweat	8-1/8	205	1-15/16	49	2-3/16	56	3-1/16	78	5-1/4	134	3-5/16	84	7.0	3.2
005-SF2-1PNP	SS Flanged	8-1/8	205	1-15/16	49	3-5/32	80	3-3/32	78.4	4-3/4	121	6-3/8	162	7.0	3.2
006-BC7-1PNP	1/2" Sweat	8-1/8	205	1-15/16	49	2-3/16	56	3-1/16	78	5-1/4	134	3-5/16	84	7.0	3.2
006-BC7-PNP	3/4" Sweat	8-1/8	205	1-15/16	49	2-3/16	56	3-1/16	78	5-1/4	134	3-5/16	84	7.0	3.2

#### Pump Drawings



#### Mounting Positions



#### Electrical Data

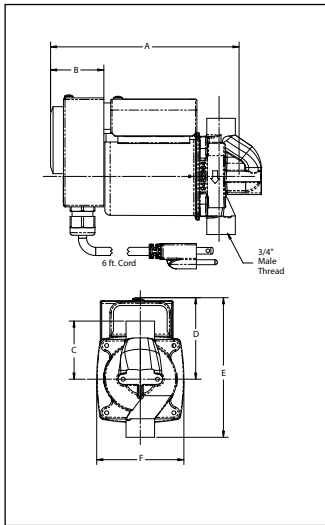
Model	Volts	Hz	Ph	Amps	RPM	HP
003-PNP	115	60	1	.45	3250	1/40
005-PNP	115	60	1	.54	3250	1/40
006-PNP	115	60	1	.52	3250	1/40
006-PNP (IFC)	115	60	1	.57	3250	1/40

**Motor Type** Permanent Split Capacitor  
**Impedance Protected**



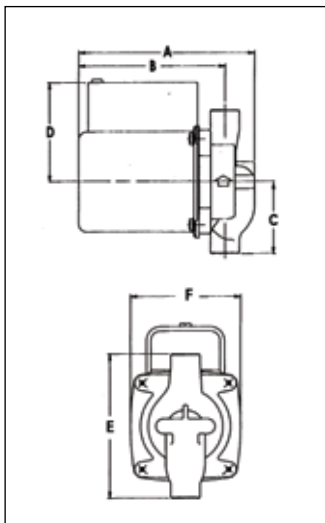
### Features

- Digital Timer, 7 day Programmable
- Large LCD Display
- Easy-to-Use Program Buttons
- On/Off Intervals as Short as 1 Minute
- 2,500 hour Capacitor Backup, Saves Settings



### Application

For recirculation systems setup for constant circulation or with an optional aquastat control, use Plumb n' Plug® with line cord only. Simply Plumb it in and Plug it in.



### Application

The Plumb n' Plug® with Digital Timer allows ON/OFF program settings to fit any homeowners' schedule. Multiple settings allow for different weekday/weekend run times. Run time intervals can be set as short as 1 minute to maximize energy savings. Easy-to-Use clock face and large LCD display make settings a snap. Its on-board capacitor retains settings in memory for up to 2,500 hours, during power outages.

### Pump Dimensions & Weights

#### Digital Timer

Model	Connection	A		B		C		D		E		F		Ship Wt.	
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	Kg
003-BC4-8PNP	1/2" Sweat	7-1/4	184	1-15/16	49	2-1/8	54	3-1/16	78	5-1/4	134	3-5/16	84	7.0	3.2
003-B4-2PNP	3/4" Sweat	7-1/4	184	1-15/16	49	2-3/16	56	3-1/16	78	5-1/4	134	3-5/16	84	7.0	3.2
003-ST4-2PNP	3/4" FNPT	7-1/4	184	1-15/16	49	2	51	3-1/16	78	5-1/4	134	3-5/16	84	7.0	3.2
003-SC4-3PNP	Union	7-1/4	184	1-15/16	49	2-31/32	76	3-1/16	78	6	152	3-5/16	84	7.0	3.2
006-BC4-4PNP	1/2" Sweat	7-1/4	184	1-15/16	49	2-1/8	54	3-1/16	78	5-1/4	134	3-5/16	84	7.0	3.2
006-B4-2PNP	3/4" Sweat	7-1/4	184	1-15/16	49	2-3/16	56	3-1/16	78	5-1/4	134	3-5/16	84	7.0	3.2
006-ST4-2PNP	3/4" FNPT	7-1/4	184	1-15/16	49	2	51	3-1/16	78	5-1/4	134	3-5/16	84	7.0	3.2
006-SC4-3PNP	Union	7-1/4	184	1-15/16	49	2-31/32	76	3-1/16	78	6	152	3-5/16	84	7.0	3.2

#### Digital Timer with Integral Flow Check (IFC®)

Model	Connection	A		B		C		D		E		F		Ship Wt.	
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	Kg
003-BC4-11PNP	1/2" Sweat	8-1/8	205	1-15/16	49	2-3/16	56	3-1/16	78	5-1/4	134	3-5/16	84	7.0	3.2
003-BC4-10PNP	3/4" Sweat	8-1/8	205	1-15/16	49	2-3/16	56	3-1/16	78	5-1/4	134	3-5/16	84	7.0	3.2
006-BC7-5PNP	1/2" Sweat	8-1/8	205	1-15/16	49	2-3/16	56	3-1/16	78	5-1/4	134	3-5/16	84	7.0	3.2
006-BC7-4PNP	3/4" Sweat	8-1/8	205	1-15/16	49	2-3/16	56	3-1/16	78	5-1/4	134	3-5/16	84	7.0	3.2

### Line Cord Only

Model	Connection	A		B		C		D		E		F		Ship Wt.	
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	Kg
003-BC4-4PNP	1/2" Sweat	5-1/8	130	4-1/8	105	2-3/16	56	3-1/16	78	4-13/32	112	3-5/16	84	6.5	2.9
003-B4-1PNP	3/4" Sweat	5-1/8	130	4-1/8	105	2-1/8	54	3-1/16	78	4-1/4	108	3-5/16	84	6.5	2.9
003-ST4-1PNP	3/4" FNPT	5-1/8	143	4-7/8	124	2	51	3-1/16	78	4	102	3-5/16	84	6.5	2.9
003-SC4-2PNP	Union	5-5/32	131	4-11/32	110	2-31/32	76	3-1/16	78	5-15/16	151	3-5/16	84	6.5	2.9
006-BC4-2PNP	1/2" Sweat	5-1/8	130	4-1/8	105	2-3/16	56	3-1/16	78	4-13/32	112	3-5/16	84	6.5	2.9
006-B4-1PNP	3/4" Sweat	5-1/8	130	4-1/8	105	2-1/8	54	3-1/16	78	4-1/4	108	3-5/16	84	6.5	2.9
006-ST4-1PNP	3/4" FNPT	5-5/8	143	4-7/8	124	2	51	3-1/16	78	4	102	3-5/16	84	6.5	2.9
006-SC4-2PNP	Union	5-5/32	131	4-11/32	110	2-31/32	76	3-1/16	78	5-15/16	151	3-5/16	84	6.5	2.9

### Line Cord Only with Integral Flow Check (IFC®)

Model	Connection	A		B		C		D		E		F		Ship Wt.	
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	Kg
003-BC4-7PNP	1/2" Sweat	6	152	4-7/8	124	2-3/16	56	2-15/16	75	4-3/8	111	3-5/16	84	6.5	2.9
003-BC4-6PNP	3/4" Sweat	6	152	4-7/8	124	2-3/16	56	2-15/16	75	4-3/8	111	3-5/16	84	6.5	2.9
006-BC7-3PNP	1/2" Sweat	6	152	4-7/8	124	2-3/16	56	2-15/16	75	4-3/8	111	3-5/16	84	6.5	2.9
006-BC7-2PNP	3/4" Sweat	6	152	4-7/8	124	2-3/16	56	2-15/16	75	4-3/8	111	3-5/16	84	6.5	2.9

## 60 Hz Performance Field

